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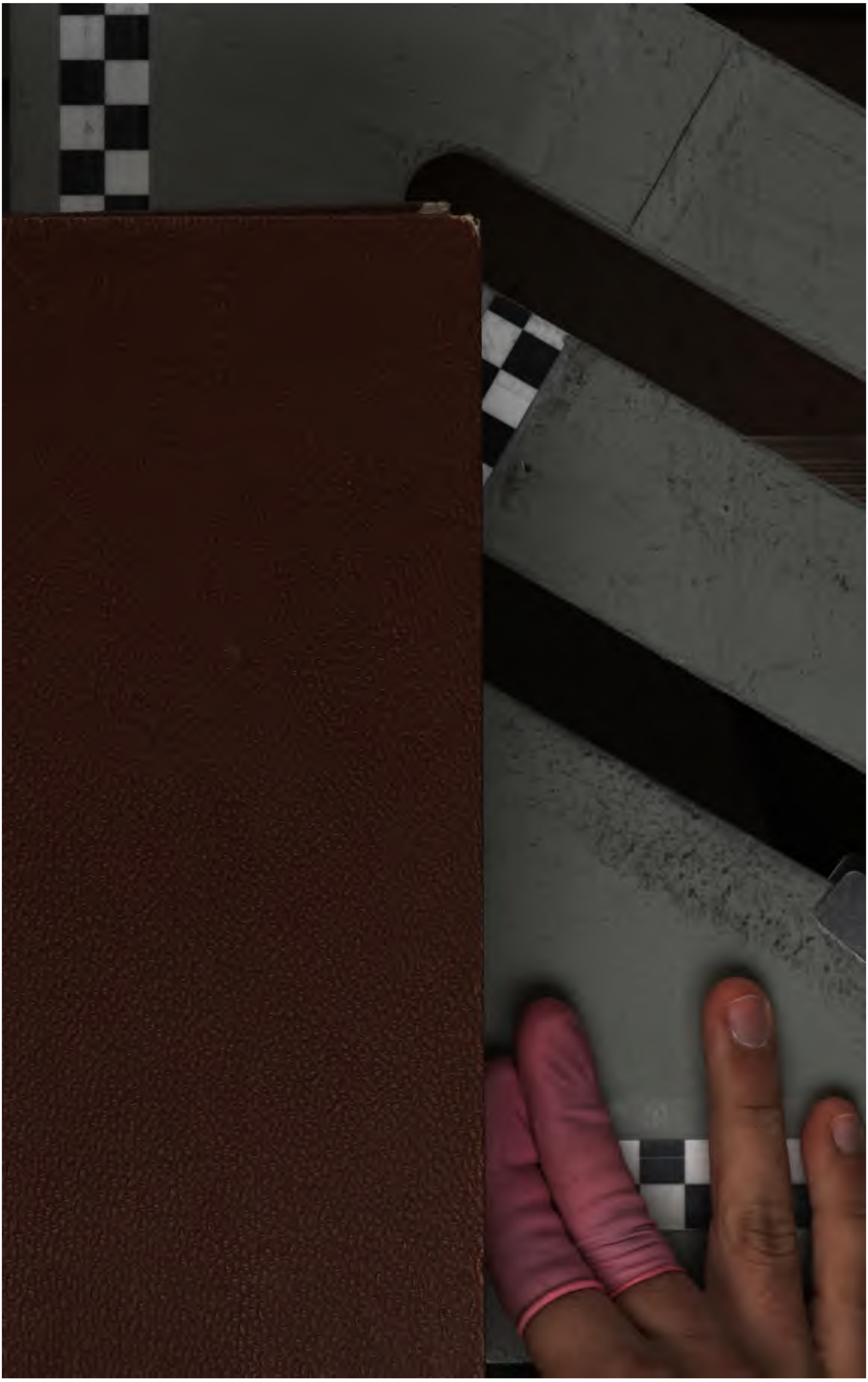

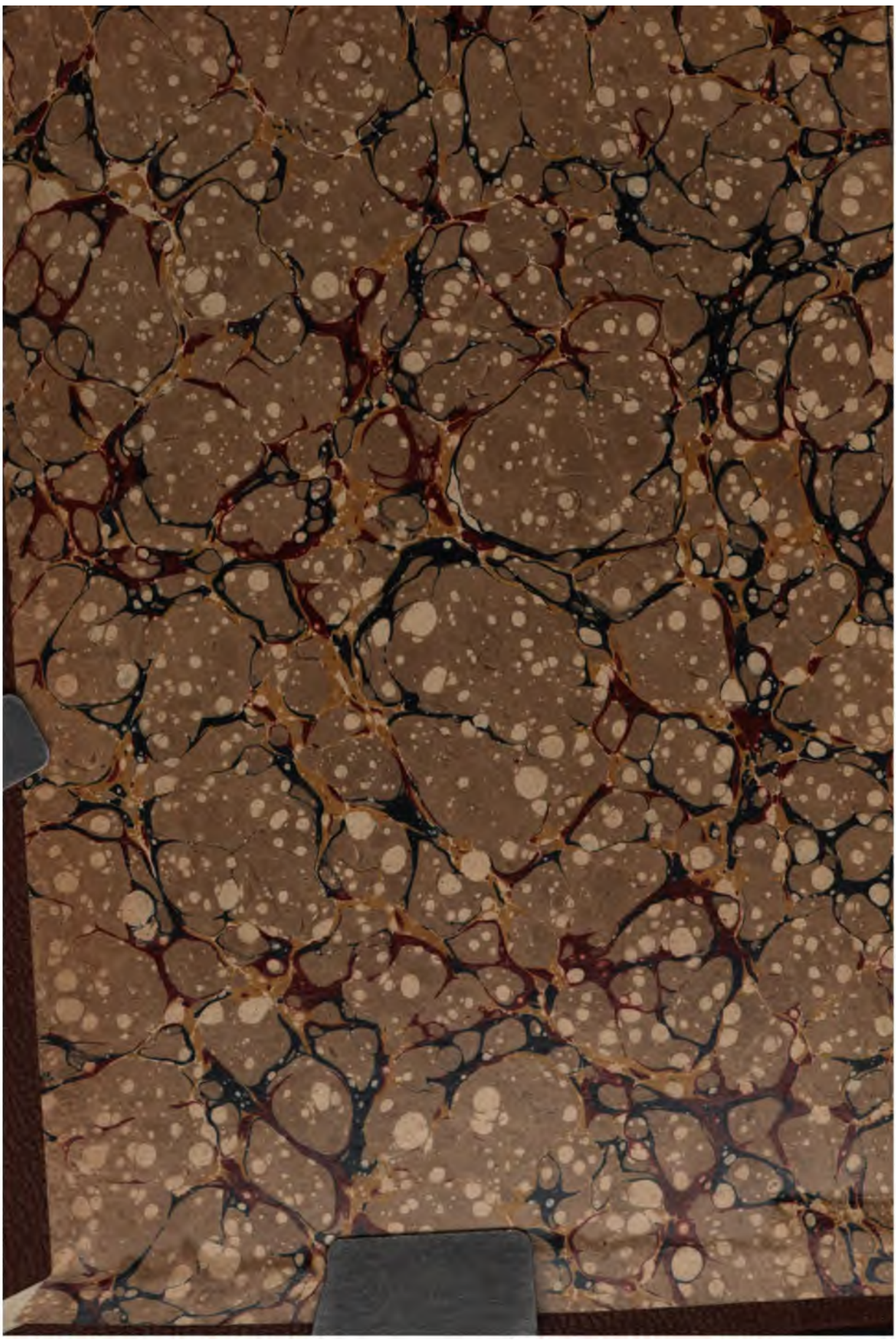

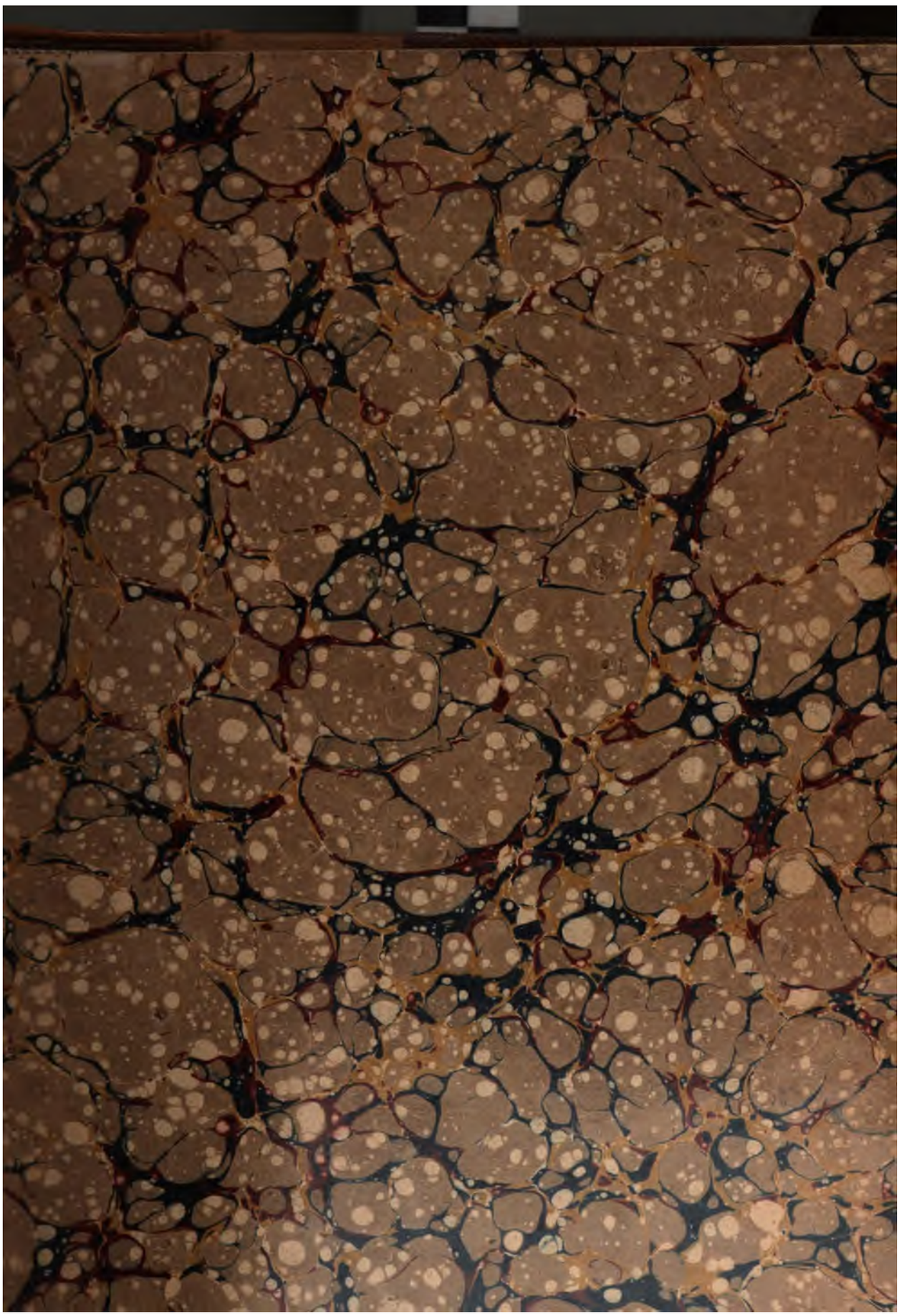

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THE WORLD'S WORK

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A HISTORY OF OUR TIME

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ONE OF THE LATEST PHOTOGRAPHS OF EX-PRESIDENT GROVER CLEVELAND

WHO WILL ATTEND THE CONFERENCE FOR THE CONSERVATION OF NATURAL RESOURCES AT THE WHITE HOUSE. HE INAUGURATED OUR FIRST NATIONAL FOREST POLICY

[*See "The March of Events"*]

THE WORLD'S WORK

MAY, 1908

VOLUME XVI NUMBER 1

The March of Events

THE meeting of the Governors of the states at the White House this month is without precedent in two respects: the Governors never before came together for any reason, and no such influential or representative body has ever met in our whole history for such a purpose as the preservation of our forests and streams and land. The meeting will be the more impressive, too, because Mr. Cleveland will attend it.

It is likely to turn out that the definite formulation of the large plan which this meeting will emphasize will be regarded by our descendants as the most important event of our time; and it is the most important work of our time whether our descendants so regard it or not.

Men may differ about methods, but about the necessity of a united movement to save our trees and streams and land, there is no difference; and the subject is now becoming so well understood that every unit of government may be expected to take up the work intelligently — municipalities, townships, counties, states, and the general government — and the people in corporate and private ways.

Of course, there is a vast deal of educational work yet to be done to arouse all the people to a full appreciation of these fundamental duties; and a meeting like this will go far to enlist our school machinery, the press, and all other educational forces. This movement is already changing the people's attitude to the very earth that they live on and making a new adjustment of our lives and work. And Mr. Roosevelt and Mr. Pinchot, in particular, have linked their names to a new era in our development and in our thought.

ABOUT POPULARITY

A LITTLE while ago Mr. Roosevelt was by far the most popular public man in almost every large class of the people that we have had in recent times; and he is yet by far the most popular if a vote of all the people were taken. But in certain strata of our life he is now as heartily disliked as any President ever was. The financial world, a part of the railroad world, and a part of the industrial world would like to see his term of office end to-morrow and to see him condemned to perpetual silence. He has aroused a bitter and unreasoning hatred among a considerable number of men belonging to these classes.

The main cause of this change in the public mood is, of course, the panic of last year and the consequent depression, for which the blame is put on him, his policies, and his methods. However unjust this blame may be, he must bear it as Mr. Cleveland had to bear similar blame during his last years of office.

But there is another cause of this sharp change of mood of a part of the public. Mr. Roosevelt's approaching retirement from office has much to do with the open criticism of him, especially by a large number of politicians and their commercial acquaintances. The accumulated unfriendlinesses and hostilities of his whole public life now mass themselves noisily because he is soon to lay down power, and the politicians who have always disliked

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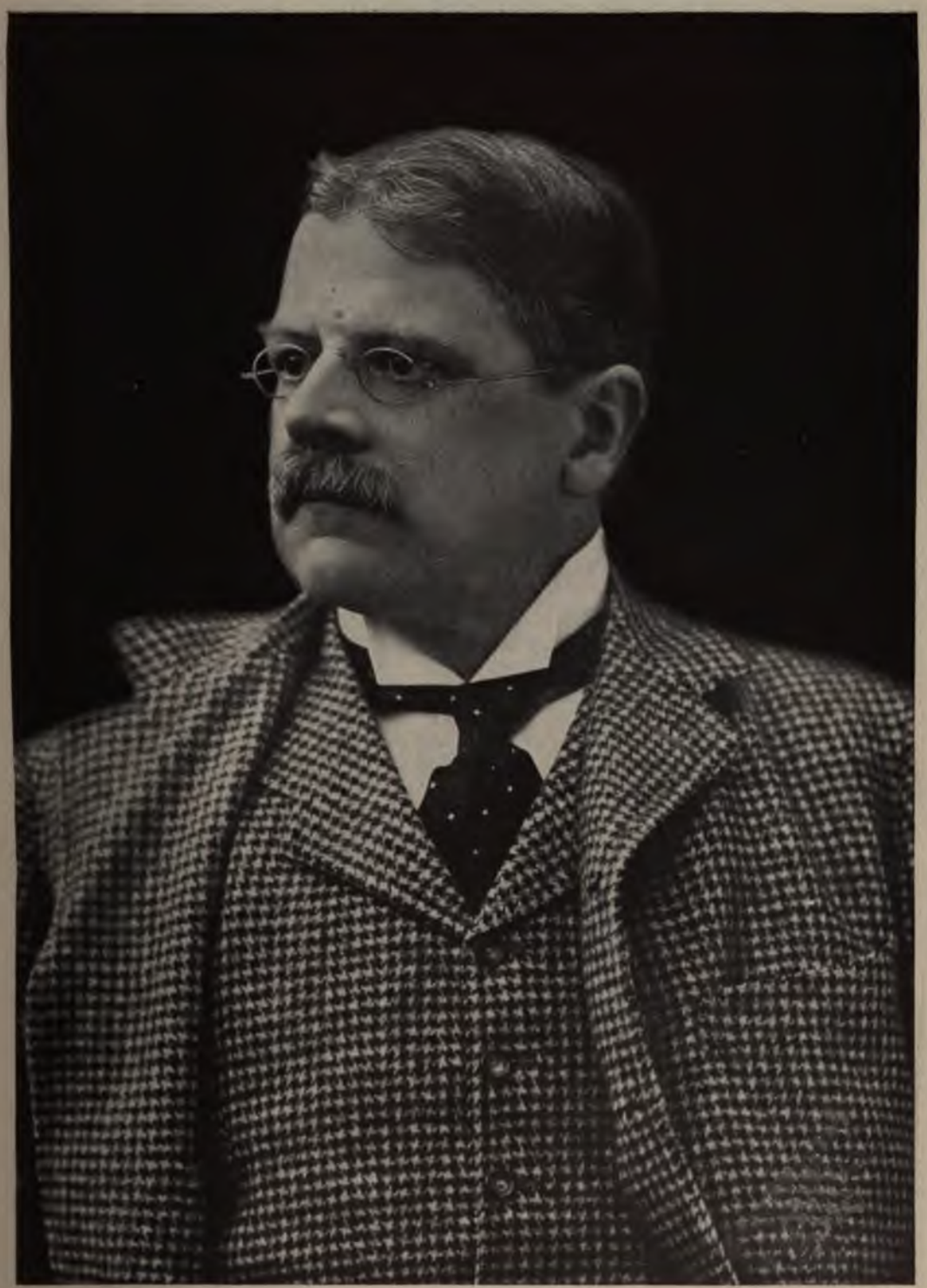
MR. AUGUSTUS THOMAS

THE AUTHOR OF "THE WITCHING HOUR," ONE OF THE SUCCESSFUL PLAYS OF THE CLOSING THEATRICAL SEASON

(See page 10204)



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MR. EDWIN A. ABBEY

THE DISTINGUISHED AMERICAN ARTIST

[See page 1019]

him are now emboldened to vent their pent-up hatred. The nearness of his retirement has a great deal to do with the violent criticism of him in political quarters, and it shows a very ungenerous side of our political life.

Thus may a public man lose popularity by precisely the same qualities by which he gained it. The same persistence, the same frankness, the same energetic speech and manner, the same temperament, and even the same policies, earnestly pursued, now bring curses that once brought praise, and hatred instead of popularity.

All this is interesting though not surprising at all; for both the excessive popularity and the excessive dislike of the President are passing incidents, both being partly artificial; and neither will materially affect — or even now affects — the judgment of balanced men who look before and after.

In fact, most Presidents in recent years have gone out of the White House at the lowest ebb of their popularity. A definite effort to nominate General Grant for a third term failed; Mr. Hayes was less popular when his official life ended than at any preceding period, and so were Mr. Harrison and notably Mr. Cleveland. A great many persons expect a President to do many things that he cannot do; almost every appointment disappoints a dozen applicants; and these accumulated hostilities express themselves as retirement approaches.

Mr. Roosevelt's popularity is, perhaps, now at the highest point it has yet reached; for his enemies seem blind to the fact that their hostility continues to win him an increasing number of admirers.

MR. TAFT'S SUCCESS

MEN of sound opinions are already adjusting themselves to the thought of Secretary Taft as President. Both his nomination and his election have been for a year or more as nearly certain as any future electoral event can be; and month by month the list of delegates to the Republican convention who will vote for him lengthens toward the nominating number.

His bearing as a candidate commends him and has won a steady popularity for him. His combination of solidity of mind and good humor is to the people's liking. He is a safe man and at the same time a pleasant man. His attitude toward all the larger policies now most under discussion may be called an attitude of progressive conservatism. He will take no step backward. Railroad regulation, a "friendly" revision of the tariff, the prosecution of law-breakers, rich or poor, the whole movement for a conservative restraint of corporations within the bounds of law, the dignity and the independence of the bench, better currency laws — on all these subjects he has definite convictions, and they meet the practical approval of the great majority of American citizens — with the very possible exception of his attitude on the tariff. To the discussion of all these subjects he has brought frankness and a large common sense.

The ineffective and silly talk which was sporadic for several months about "the money-power" nominating this or that reactionary or pliable candidate has died away in the presence of his general popularity. The silliest of all political gabble was the talk of his "disadvantage" in being the "Administration candidate"— for this is one of his greatest advantages. Since the Roosevelt policies are so popular as to make the President's renomination inevitable if he had not put himself outside the contest and if it would not be a third term for him, then it follows that one of the President's most loyal advisers and friends, who will pursue substantially the same policies, is for that very reason the more popular.

But Secretary Taft does not harrow the souls of men who object to a President's bear-hunting and chasing nature-fakers and reforming spelling and preaching fecundity and talking publicly with mighty men of muscle and of writing many messages and more letters and using the singular personal pronoun (because it is egotistical) and of using the plural personal pronoun (because it hints of royalty) and of doing things in general with great vim. He will not be a brooding Buddha in the White House, but he will not (during the first years of his Presidency, at least) get on the nerves of folk whom Mr. Roosevelt's manner now drives to unreason and gnashing of teeth.

But all these sillinesses are negligible. The main matter is that Secretary Taft is a man of sound thought, of definite convictions, of frankness, of courage, and of a wide sympathy; and he has had better training for the Presidency perhaps than any other man since the very early days of the Republic. The American people may look forward to his administration with safety and gratification.

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REAR-ADMIRAL CHARLES STILLMAN SPERRY

[*See "The March of Events"*]

MR. THEODORE N. VAIL

PRESIDENT OF THE BELL TELEPHONE SYSTEM, WHO FAVORS GOVERNMENT CONTROL OF CORPORATIONS

[*See "The March of Events"*]

THE PRESIDENCY AND THE SUPREME COURT

THE following facts about the Justices of the Supreme Court are worth notice:

Justices	*Date of appointment*	*Present age*
Chief-Justice Fuller	1888	75
Justice Harlan	1877	75
Justice Brewer	1889	71
Justice White	1894	63
Justice Peckham	1895	70
Justice McKenna	1898	65
Justice Holmes	1902	67
Justice Day	1903	59
Justice Moody	1906	55

The Chief-Justice and Justices Harlan, Brewer, and Peckham have passed the age (70) at which they may retire. The very great probability is that by retirement or by death an unusual number of vacancies will occur on this bench during the administration of the next President.

Justice Harlan was appointed by President Hayes; the Chief-Justice and Justices White and Peckham by President Cleveland; Justice Brewer by President Harrison; Justice McKenna by President McKinley; and Justices Holmes, Day, and Moody by President Roosevelt. Mr. Cleveland's and Mr. Roosevelt's appointments make up two-thirds of the present bench.

Many men will ask themselves these questions before the election: What sort of men would Mr. Bryan appoint to these high places, if he should become President, and what sort of men would Mr. Taft appoint? Few more important questions than this will come up during the campaign.

THE RED FLAG AND THE TORCH

A SERIES of petty anarchistic crimes, including the riots in Philadelphia, the murder of Father Leo Heinrichs in Denver, an attempt to murder the chief of the Chicago police, and an unemployed demonstration in New York, with what seems to have been a desperate attempt to annihilate a cordon of police with a bomb, leads naturally to the question, what are we to do with anarchists?

From time to time outbursts of lawlessness must occur even in the most carefully regulated of democracies. Yet we cannot afford to close our eyes to the steady growth of the spirit of lawlessness.

Secretary Straus, of the Department of Commerce and Labor, has ordered especially strict examination of all immigrants, and enforcement of the laws for the shutting out of foreign anarchists. This is a first step. President Roosevelt has instructed the Post-Office to exclude from its privileges a Patterson newspaper which is one of the most blatant advocates of the bomb and the knife. The police of the great cities, the natural centres of lawlessness, have received definite instructions to guard against seditious meetings, and the authorities have exercised their power of discretion in refusing permits for various mass-meetings that seemed to promise the promulgation of the anarchistic propaganda.

Further than this we have not as yet gone. The leaders of the anarchist movement still live at peace, watched, it is true, yet free to come and go. The law against which their hands are raised protects them, and must continue to protect them until they openly break it. A dozen newspapers in New York are circulated every day, carrying with them an open incentive to violence, yet so carefully written that they escape the penalties of the law for the spreading of such sedition.

The Socialists disclaim all connection with the anarchists. In theory, the disclaimer is doubtless correct. Few of the so-called Socialists believe in the doctrine of violence. Yet, the uneducated, half-civilized, ill-balanced foreigner of the East Side, who listens to the hot denunciations of the existing form of government, of the "reign of wealth," of the extravagance of the rich, as they fall from the lips of the purely Socialist orator, cannot distinguish between this teaching and the teaching of his anarchist leader. Both preach revolt, and the man who hears takes his own method of revolt. The responsibility for the outrages must rest on the shoulders of the Socialist orators and writers in common with the anarchistic teachers.

The student of government and law may find these sporadic outbursts an interesting matter of study. If he turn from the cities, and let his mind rest on the state of affairs in Kentucky, he will find an even more interesting condition. In that state, certain men have decided that the price paid for leaf tobacco by the manufacturers has been too low. To raise it, they banded together and decided that they would not grow tobacco this year. Going further, they served notice on the other growers in the state that they must grow no tobacco. To make the matter more

certain, they swept the country in night-riding bands, burning tobacco-barns, scraping out the tobacco beds, destroying property in every direction. The local newspapers estimate that more than $50,000,000 worth of property was destroyed by these marauders last winter.

This blatant disregard of law is of a piece with the anarchy and disorder that so deeply disgraced Colorado, Idaho, and Montana within the past few years. It marks a semi-civilized condition, on the level of Portugal or Bulgaria. No excuse removes the stain, no matter how well it may be expressed. The capture and punishment of only a few of the hundreds involved in these disgraceful affairs is needed to break up the movement. If the state cannot accomplish that much, the state is a laughing-stock before the country.

All these events show that what this country needs above all other things is a deeper, truer, more effective appreciation of the meaning of the law. Until the law becomes a part of our national life, a part of our very nature, we cannot hope to escape these outbursts of anarchy and assassination. The Government can do something, but so long as it remains without the solid backing of the people, it cannot do very much. Lawlessness yet comes too easily to the surface of American life.

DEGENERATE, MOLLYCODDLED TOWN-LIFE

NOW, as always in times of depression, the problem of the unemployed presses on the cities — the unemployed who would do work if they could get it to do in their usual haunts. That any man should be out of work who is able and willing to work is proof of a great defect in our industrial organization; for in most parts of the United States to-day, in spite of the depression, the crying need is not for work but for men who will work.

The official report recently made at Albany on the needs of rural life shows that there is room for two million more persons in the state of New York. From Virginia to Texas almost every neighborhood has rich acres that cry out for workers — acres on which somebody will achieve independence within a reasonable time. In the Pacific States there is not labor enough to carry on the enterprises that have been begun, to say nothing of others that wait only for men who will work. For every man out of work in our cities there is, it is safe to say, a profitable chance for dozens of men somewhere in the country and in the small towns.

For we have forgotten, in the disproportionate development of city life during the last thirty or forty years, that the United States is, and always will be, mainly an agricultural country. Financial and commercial organization and all the great new tools of modern life are tools chiefly for the development of cities. We have invented and applied all possible conveniences and comforts and allurements for town-people; and until lately we have permitted the country people to shift for themselves in the old way. The whole force of modern social organization and development has been directed to urban growth. Now, therefore, whenever it happens that there are more people in the towns than the towns have work for, they are helpless. They have been wrongly trained. They do not know the country. They have a dread of and a contempt for it. They do not even know how to go to it or how to try to find out. The suffering in the cities is the penalty for this sin of a wrong direction of life.

II

The work of charity for the relief of suffering is becoming a sort of science in the big cities; and the good men (some of whom are wise) that have it in hand are no doubt doing their task better than it has ever before been done. Yet there are few more pathetic things in all the annals of human ignorance than the recent assembling of a crowd of men, who say they want work and who need food, to be harangued by goody-goody reformers and sentimental leaders and to be scattered by a fool with a bomb — this in a public square in New York City; and the public press of the whole town fell to discussing the great principle of the freedom of assembly, and learned men of confused ideas wrote about the rise of freedom by this sacred right, and the grave question was discussed on two continents whether the police should club a Socialist mollycoddle or should protect him, and the labor unions discussed socialistic programmes — all this when a day's ride or less in a train would take half the population of New York City, men, women, and children, to land where their work is needed and where every really efficient family could become independent in five years!

Such an occurrence as this suggests the inquiry whether the pampering of men in the

cities by the attitude and the influence of the rich, by the weakness of the charitable, by the lack of real leadership among the laboring classes, by the vice of yellow journalism, and by the rottenness of city government is not making a large part of city-dwellers hopelessly degenerate. These city dwellers on the lower levels of industrial life never find out what American citizenship means nor what American life offers. They are the victims of bad city government. They are the victims of hard employment. They are the victims of degrading class distinctions such as arise whereever the very rich live. They are the victims of labor unions, some of which encourage only sloth and dependence. To be men and to see the horizon all around are impossible to them. Two or three generations of such life will produce a distinctly degenerate type.

There is need of larger, stronger, franker leadership; and need to come back to the old truth that the normal life is life on the soil; and there is need to come back to the other old truth that pampering ignorant and degenerate men, feeding them free, dealing tenderly with them, preaching either revenge to them or a Utopia that cannot be realized — that all this is the best way to weaken manhood, to destroy self-dependence, to turn American cities into places of palaces and almshouses and slums, whereas American cities ought to be chiefly the market-places for American farmers and manufacturers in smaller towns. It is now easier for a Jew to find his way from an obscure ghetto in Poland to a ghetto in New York than it is for an average American workingman in New York to find his way to a profitable farm within a day's journey. The namby-pamby and the dreamers have been tinkering with the problem long enough. It is time for business men of sense and of energy to take it in hand. If they do not, we shall make of our cities mere breeding-places of degenerates. What now keeps the unemployed in the cities are chiefly the vices of body and of mind, and wrong, tame, sentimental dealing with the subject which leads to degeneracy.

III

Of course the huddled thousands in the city, who have become like cattle, do not wish to go to the country — because they have become like cattle and have developed tastes and habits that bind them to the servitude and the conveniences of urban life. But if a small part of the money and of the energy were spent in trying to get them away that is spent in bringing them here from Europe, there would be such travel as would tax all the railroads leading out of New York.

Small societies have for many years been successful in finding country homes for city children; and there is no reason why similar work done on a large scale under good management should not succeed with adults and with families. The coöperation of the governments of the rural states, or of societies in them, would, of course, be necessary; and so would the active coöperation of the railroads. The point is, there is nothing impossible in such an undertaking, unless it be impossible to become sufficiently earnest about it to induce the proper men to take it up.

Some such earnest and concerted movement is necessary to prevent the forces of city life from causing a permanent degeneracy of a considerable part of the urban population.

CORPORATE BUSINESS WITH OPEN DOORS

YOU may find instances almost any day in commercial and financial circles of a recent change from the methods that were in a measure secret and oligarchical to methods that are open and that pay more heed to the rights of the public. An indication of such a change of thought, if not of method, is the universal comment that was made on the fees allowed by a New York court to the three receivers of the Knickerbocker Trust Company.

This company was in the hands of three receivers for four months. Their task was a delicate and perhaps a somewhat difficult one, but it involved no personal risk. The law permitted the court to fix the fees of the receivers by a percentage, at about $125,000 each; and the judge did allow them $75,000 each and their three counsel $25,000 each. But these fees, although they fell far below what the law permitted, struck the community as scandalous.

Yet five years ago, in the days when the public hardly dared to question any action done in the realm of high finance, even larger fees would hardly have attracted general notice; for then banks and trust companies and other corporations were, as a rule, regarded as the property of high financiers and their intimates and favorites. But a great change has come.

Publicity now beats fiercely upon all such transactions. The common stockholder or depositor is now emboldened to assert rights that he had almost forgotten were his, and his rights are, to a degree at least, now conceded. A corresponding change is taking place in the management of many corporations, in the practice of corporation law, and, of course, in the general attitude of the public.

It is this improvement in commercial and financial methods — this way of doing business more in the sight of the stockholder and of the public — that is the moral justification of all the agitation that we have had. In spite of mistakes, jolts, injustices, losses, and all sorts of temporary troubles, the general movement has been wholesome in its results, and we are not likely to go back to the old ways of doing corporate business behind closed doors and at the hands of oligarchies who make methods of their own. The stockholder and the public count for more and more.

AN INDUSTRIAL GIANT

A SINGLE corporation, with the smaller corporations it controls, gave employment during 1907 to more than 210,000 people, and paid out in wages and salaries more than $160,000,000. Thus, on the usual basis of such calculations, the work of the United States Steel Corporation gave a living to a million people, men, women, and children.

Whether it is a profitable or a fit thing that a single aggregation should furnish a living to more people than live in any but our largest cities is a question that may be left to the economists. In forming a judgment, it must be remembered that the average wages in 1907 increased about 5 per cent. over the average for 1906. Moreover, the laborers seem to have been satisfied. They bought many thousands of shares of the stock of the corporation that employed them, at prices considerably below the market prices.

This corporation, which was a bugbear during the first few years of its life, seems to have "made good." It has not oppressed either its competitors, its markets, its laborers, or its backers. Its management has been clean, open, and honest. It took the lead from the very start in telling the public what it was doing, and its annual reports are the fullest reports issued by the big industrial companies. It has the strength of a giant, but so far it has not used its strength oppressively.

POLITICS AND BANKS

TWO public officials have recently left the service of state and country to seek the larger rewards of private business. One, Mr. Charles H. Keep, resigned a position as one of the Public Service Commissioners of New York to accept the task of managing the Knickerbocker Trust Company of New York, which has resumed business after four months in the hands of receivers. The second, Mr. William B. Ridgely, leaves the office of Comptroller of the Currency to accept a position as president of the National Bank of Commerce of Kansas City, another institution that went down in the panic and has again resumed business.

It has become an axiom that the Government cannot keep its banking officials in its service when the private banking interests begin to bid for them. Mr. Ridgely received $5,000 a year as Comptroller of all the national banks. As president of one, he will probably receive at least twice that salary, and possibly much more. Mr. Keep was once superintendent of banks in New York state, and served as well as could be expected under the conventions of his office at that time.

The office of Comptroller is one of the most important offices in Washington. It is at the head of the machinery for clean banking. It puts in motion every reform in the detail of banking administration, and should be responsible for all errors that creep in. Under these circumstances, the salary paid seems ridiculous. The whole department needs reorganization on a scale commensurate with the business interests it represents. It is surely nonsense that the same salary which was considered adequate when there were but a few dozen small banks in the country should be considered adequate at this time when the office of the Comptroller has supervision over nearly seven thousand national banks.

FACILITIES FOR ALL THE PEOPLES' SAVINGS

THERE is every good reason to hope for the establishment of postal savings-banks according to the plan made by the Postmaster General and approved by most competent men and bodies that have studied the subject. Under this plan any person more than ten years old may have a deposit of any sum

between $1 and $500, which shall draw 2 per cent. interest; the postmasters shall deposit these savings in the United States banks in their communities, which shall allow to the Government 2½ per cent. The money will thus go into circulation in the communities where it is saved, and its safety will be guaranteed by the Government.

The need of such savings banks in most parts of the country is obvious. In the Pacific States the average distance that men have to go to reach any bank is 55 miles; in the Southern States, 33 miles; in the Middle States, 25 miles. This is, of course, a prohibitive distance. In the New England States, where savings-banks are accessible to most of the population, they have deposits of more than a billion and a quarter dollars — more than in all the rest of the Union except New York. There is no doubt that accessible and safe depositories for savings in every part of the country — and only postal savings banks, of course, can be made so accessible — would put many hundreds of millions of dollars into circulation that is now hoarded in small sums, and this is enough money to make an enormous difference to the prosperity of the country.

During the last fiscal year more than 72 millions were sent abroad by postal money-orders only; and it is known that much of this was sent for deposit in foreign postal savings-banks. Many newcomers are distrustful of our banks, and in the large cities there have been many private so-called banks that swindled them.

For the encouragement of thrift, for the keeping of much money in the United States that now goes abroad, and for the putting of an enormous sum in circulation that is now hoarded in small amounts, postal savings-banks would serve, as nothing else can, the people in practically every part of the country. Even Canada has 50 millions in such banks.

THE STATE ANTI-RAILROAD LAWS

THE riot of anti-railroad state legislation of last year was dealt with in a very definite way when the laws of Minnesota (and the laws of North Carolina and Alabama are of the same kind) came before the Supreme Court. The court in its decision laid down — or reaffirmed — two plain general principles, (1) that property may not be taken or confiscated without due process of law (these state acts were really confiscatory); and (2) that no person or corporation may be denied the protection of the law. The following extract from the decision makes the court's position plain:

> "By reason of the enormous penalties provided in the rate laws, by way of fines against the companies and imprisonment of their agents and employees, the companies were in effect prevented from ever questioning the validity of those laws, as the risk of confiscation of property and imprisonment of agents in case the companies failed in their defense, was too much to undertake in order to obtain a judicial decision of the question of such validity.
>
> "Such laws are therefore held unconstitutional, as they prevented the companies from resorting to the courts, and therefore deprived them of the equal protection of the laws."

In a word, these state legislatures in their regulative zeal — a blind zeal without knowledge — overshot the mark.

The loss and general depression of business and the severe discouragement to railroad investment and extension had already shown the suicidal nature of such state acts; and now the Supreme Court decides, as every well-informed lawyer knew it would decide, that this violent attack on property was unconstitutional.

All the high, fine, brave talk about "states rights," therefore, went for nothing — being the sound of now forgotten demagogy; and the chance of sane and really proper state regulation has, perhaps, been set back by this Populistic onslaught. If state politicians would substitute state "duties" for state "rights" in their vocabulary and their activity, they would make a real advance in thought and in usefulness.

THE LOG OF THE GREAT FLEET

THE arrival of Rear-Admiral Evans and his sixteen battleships in Magdalena Bay, after a voyage of nearly 15,000 miles, ended an exploit that justifies national pride. It also rounded out, in a befitting manner, the career of a commanding officer who is both the idol of the navy and the admiration of his country. The reception which our ships received throughout the voyage, the seamanship of their officers, and the behavior of the sailors on shore was gratifying in the extreme. The cruise has kept alive our confidence in our floating defenders, and it has justified the wisdom of the President

in sending them. Since it is scheduled to continue its voyage around the world, thereby accomplishing by far the longest cruise ever taken by so large a fleet, it is well to keep its log in mind.

With "good bye and good luck!" from the President, the fleet left Newport News on December 16, 1907. It carried 14,000 men — half of the American navy — and it represented in its construction a cost of more than 100 millions of dollars.

The sailors spent Christmas at Port-of-Spain, Trinidad, and sailed for Rio de Janeiro on December 29th, and spent the New Year at sea. January 6th gave "King Neptune" the busiest day of his long career, for on that date about 12,000 sailors "crossed the line" for the first time. Everybody from the Rear-Admiral to the coal-passers took notice of the event. "Wireless" messages from "Neptune" began to arrive the preceding day, and some of them were appalling. Ducking-stools were ordered which would allow the victims of the initiation to turn four flipflaps before they hit the royal tank. "His Majesty" was welcomed by the commanding-officers of each ship, and he did his work in traditional style. Nobody was spared, not even Lieutenant Evans, the Rear-Admiral's son. The newspaper representatives aboard received particular attention.

The reception at Rio de Janeiro, where the fleet arrived on January 12th, was practically an outpouring of the people. The welcome was unmistakably from the heart. The warships were seventy-five miles away when they caught the first signal of greeting, and they were a dozen miles from the harbor when a reception committee of three Brazilian ships hove in sight. These fired the 13-gun salute and then added two guns for good measure, thereby promoting the American commander to the rank of Vice-Admiral. On the shore and the house-tops of Rio the whole population seemed to appear, and it was said that most of the people had spent the greater part of two days in that attitude. The ten-days' stay in Brazilian waters was one continual ovation.

The city of Buenos Ayres was not on the list of stopping-places, but the Argentinians did not allow this fact to prevent them from extending a cordial greeting. A squadron of the Argentinian navy came hundreds of miles out to sea and manœuvred around until they "picked up" a wireless operator and located the fleet. As the two fleets approached each other, the Argentinians manned their rails, which is the honor accorded to the head of a nation, and then gave a 17-gun salute, thus making the late Vice-Admiral Evans a full Admiral.

Punta Arenas, on the Strait of Magellan, was the next stopping-place, but Chile's welcome was signaled from a station on the shore long before the anchors were dropped, on February 1st. At Punta Arenas the American fleet was met by a Chilean cruiser, with the United States Minister and Consul on board; the Government of Chile had sent the cruiser to bear its official welcome and to pilot the visitors through the dangerous passage. In acknowledgment of the courtesy, Admiral Evans swung his ships into the harbor of Valparaiso (though it was not one of the stopping-places) and saluted the President of Chile.

The Americans were met by a Peruvian warship 250 miles at sea and escorted into the harbor of Callao, the port of Lima. Here, at the last stop in South America, the reception was as enthusiastic as it had been at Rio. Indeed, with the single exception of the Port-of-Spain, there was nothing perfunctory about the greetings anywhere. The people of South America were genuinely glad to see the Americans in their harbors, and they showed it.

With the safe arrival of all the ships in Magdalena Bay, the original programme was completed. The vessels then prepared immediately to engage in the annual target-practice.

II

Wholly aside from the welcome of the South American peoples — which we had every reason to expect — there are other facts which give us deep satisfaction. One of these is the conduct of the American sailors on shore. The arrival of a fleet with 14,000 men anxious for shore-leave is reasonable ground for apprehension in any port, and cablegrams regarding the conduct of Rear-Admiral Evans's men were awaited with some concern. The first report came from Port-of-Spain, in the form of a letter from the British Governor to the fleet-commander:

"I would ask to be allowed to offer my congratulations on the good behavior of your men on leave. A residence of seven years in Gibraltar,

which is a rendezvous of the fleets of the world, has given me some experience of Jack ashore, and I can assert that your men have established a reputation which would be hard to equal and impossible to excel."

At Rio, 1,000 men went ashore with a whoop, but they behaved so excellently that an equal number was given leave the next day. A saloon-brawl, growing out of a misunderstanding and in which no serious damage was done, caused Rear-Admiral Evans to withdraw shore-leave, but the city immediately sent a request that 2,000 men instead of 1,000 should be allowed ashore. The result was so satisfactory that on Sunday nearly 5,000 American sailors were let loose in the city. Out of that number, about twenty returned to their ships as "plain drunks." It is doubtful if 5,000 men from any other class of Americans could show a better record under like circumstances.

Another cause for gratification was the behavior of the battleships throughout this long voyage. Every ship that left Newport News arrived in Magdalena Bay in fighting condition. Not only did the fleet make the passage of the Strait of Magellan in safety, but this achievement was accomplished in a dense fog that prevailed much of the time. During a portion of the voyage, a thick fog enclosed the warships for twenty-four hours. The positions of the ships ahead and astern could be made out only by signals. When the fog at length lifted, the landsmen aboard were amazed to see the entire fleet sailing along in good alignment, with the proper intervals between the vessels. Seamanship like this is worth all the money that it costs us.

III

The fleet will leave San Francisco early in July to return via the Philippines and the Mediterranean. It will call at Honolulu and at a port in the Samoan Islands, after which it will proceed to Australia, where a great welcome awaits it. One of the strongest evidences of the good feeling that prevails among the Anglo-Saxon peoples was the enthusiasm with which Melbourne received the news that the fleet would visit that port. It will also spend ten days at Sydney and then sail for the Philippines.

Two official calls will be paid in the Far East. Japan and China have each sent urgent invitations, and both were promptly accepted. No one doubts for a moment that the welcome will be genuine, and the visit will strengthen the friendly relations that have so long existed.

The return to American waters will be by way of Suez and Gibraltar. It will be a goodly sight when nearly two-score battleships flying the United States flag pause to salute the Union Jack flying over the great fortress of rock.

Meanwhile, the critics who derided the President's naval programme when it was first proposed have been practically silenced by the pride and the approval of the whole nation.

ABOUT GOVERNMENT REPORTS

ONE of the most vivid of the early recollections of every American's life is the voluminous Government Report. It stands out in his memory alongside the family Bible, the old spinning-wheel, his first pair of boots. He can recall exactly how it looked — they all looked alike, except for thickness — yet who has a recollection of ever seeing them used for the purpose of reading? "Patent-Office Reports" was the name by which they were generally known, regardless of the bureau from which they originated, and the term has gone into our language as a synonym for that which is wholly and always unreadable. They served a variety of useful purposes, however: They gave a touch of solemn dignity to the family bookcase; they made fairly good scrap-books; they helped the child without a high chair to rise in the world; and they perpetually reminded the voting members of the family that the Representative of the—— District had their individual welfare at heart. But nobody seemed to imagine that they were made to be read. A long perspective of the Government Printing Office is a most convincing argument against the doctrine of the liberty of the press.

This black-robed friend of our childhood is still with us, but it is not so distinctive. Time has wrought changes in it, with the course of nature reversed. The reports from some departments and bureaus have merely changed the color of the binding, it is true. But it is an unmistakable evidence of progress toward a higher civilization that thousands of books from the Government Printing Office are now intended as reading matter. Most of them are attractively bound; many are illustrated with photographs, maps, and diagrams; now and then may be found one that has

real literary merit. Better still, it is the practice of many bureaus to issue interesting parts of their reports in pamphlet form for wider distribution.

True, the advance of civilization has been somewhat retarded by the mediæval methods of the Superintendent of Documents, but even that office will eventually become modernized. When that is accomplished, it will no longer be required that a reputable concern — listed in Dun's and Bradstreet's — shall first write to Washington for the price of a pamphlet in order that the money may be sent in advance. Suppose, for example, that The Man in a Hurry wants to know the number of men composing a regiment of the United States Army. The mode of procedure is somewhat like this:

(1) The letter of inquiry goes, let us say, to the War Department, addressed to the Chief of Staff. It is respectful, typewritten, brief, and businesslike.

(2) The clerk to whom it is submitted folds it up neatly and attaches to it a memorandum stating that Mr. Man-in-a-Hurry desires to know the number of men composing a regiment of the United States army. This memorandum clears away all obscurity.

(3) Somebody dictates a reply, stating that the information can be secured from a certain pamphlet which can be secured from the Superintendent of Documents. This reply is typewritten and a copy filed away for use in case the Government becomes involved in litigation over the matter.

(4) On receipt of this reply, The Man in a Hurry swears softly to himself. Then he hurriedly writes to the Superintendent of Documents, requesting him to send the pamphlet by return mail, with bill.

(5) The Superintendent of Documents, being a prompt and capable official, immediately causes to be sent to Mr. Man-in-a-Hurry a letter saying that the price of the pamphlet is ten cents, and that it will be forwarded upon receipt of the price. He adds, however, that the money must be sent in a certain form; uncertified checks and postage-stamps will positively not be accepted.

(6) The Man in a Hurry receives this letter and again he swears — but not softly nor to himself. If there be yet time for the information to be of use, he goes to the post-office and secures a money-order for ten cents and orders the pamphlet. Then he mentally calculates the amount of energy that has been expended at both ends of the line and concludes that anarchy is not altogether bad, after all. Indeed, he thinks he knows a place where a small bomb would really do good.

This is an actual case, and it can be duplicated by the thousand. Properly to estimate the caution of the Superintendent of Documents against the possible loss of revenue, it should be remembered that unnumbered tons of his product are being given away every week. The Man in a Hurry, while acting in a different capacity, once received from this same official — and without a specific request — nine mail-bags full of bound volumes, *by registered mail.*

MAKING RURAL LIFE PROFITABLE

NO MORE important work is going on anywhere in the United States than the "farmers' coöperative demonstration work" in the Southern States, under the direction of Dr. S. A. Knapp, of the Agricultural Department at Washington. Supported in part by this Department and in part by the General Education Board, 148 agents, or traveling teachers of good farming, go to the farmers and "demonstrate" on their own land (the farmers themselves doing the work, under the agents' directions) the benefits of right methods. They show by experiment (not by mere preaching) that the observance of ten simple "commandments" of good farming will result in an enormous and unsuspected increase of yield.

There are now in the Southern States, from Texas to Virginia (inclusive), about 32,000 such demonstration farms, and some of the results are tabulated below. In the first column is set down the average yield per acre of corn and cotton as shown by the Bureau of Statistics of the Department of Agriculture, and in the second column the average yield per acre produced on the demonstration farms last year:

YIELD PER ACRE OF CORN

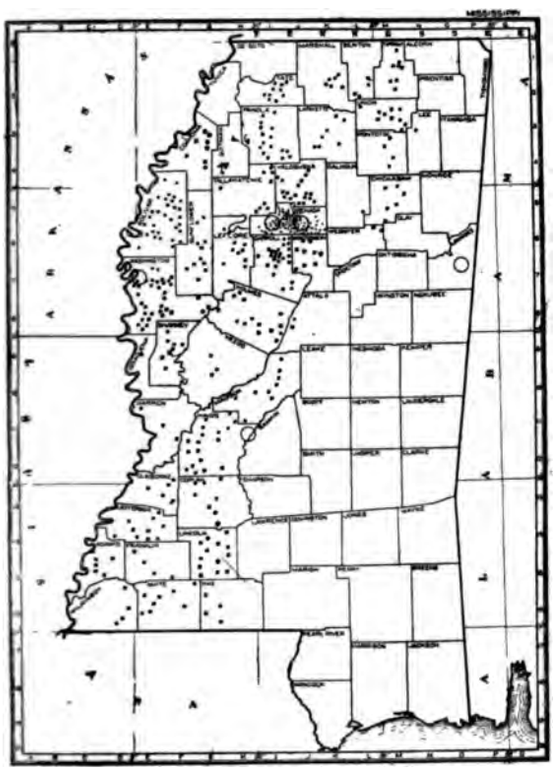
State	*General Average*	*Demonstration Average*
Mississippi	17 bushels	35 bushels
Alabama	15½ bushels	37½ bushels
Virginia	25 bushels	43⅛ bushels

YIELD OF LINT COTTON PER ACRE

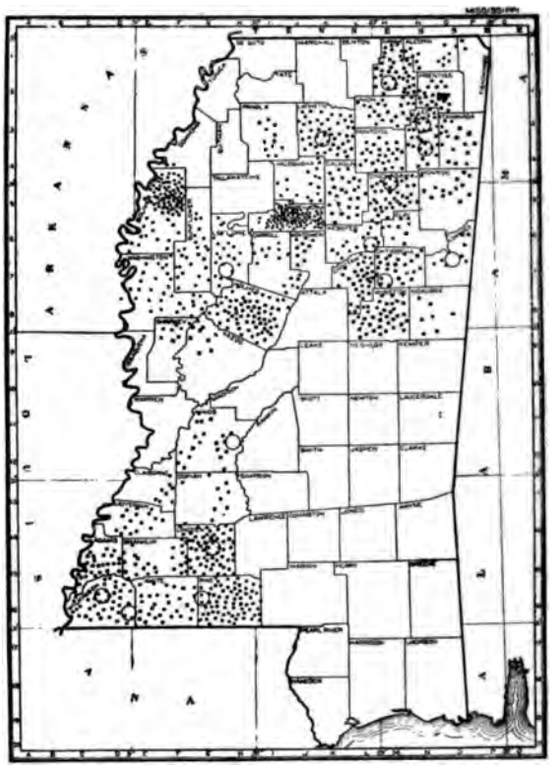
State	*General Average*	*Demonstration Average*
Mississippi	228 pounds	445 pounds
Alabama	169 pounds	428 pounds

A cotton plant of the average size from a row worked by the old methods, pulled up on a certain day, was 14 inches high and weighed 3 ounces. Another plant of the average size, pulled up on the same day and grown from seed planted on the same day as the seed of the first plant, worked by the new method, was 22 inches high and weighed 6 ounces.

It is hard to repress enthusiasm in commenting on such results and, though the making of predictions is the most hazardous use



DEMONSTRATION FARMS IN MISSISSIPPI, 1907
(Indicated by dots)



DEMONSTRATION FARMS IN MISSISSIPPI, 1908
(Indicated by dots)

of the imagination, there is a strong temptation to make them. But, if this work goes on long enough to reach the mass of farmers in these states, where agricultural methods have been especially backward, they will become at some time the richest agricultural part of the Union and one of the richest agricultural regions in the world.

This "demonstration," or purely educational work now going on, is in its very nature temporary. It had its beginning in the necessity of showing the farmers how best to combat the cotton-boll weevil. But the expectation is that the state governments, county governments, and organizations of individuals will continue it and extend it till every farmer who has any brains will profit by it; and the farmer who lacks brains will ultimately have to give up his land to one who has. In Texas, Mississippi, and Alabama, several communities have already provided money by individual subscriptions to carry on the work and to extend it; and there is reason to hope that state legislation will enable the agriculture departments of the states to make such work continuous for an indefinite time. The Farmers' Union, an organization of the most extensive membership in these states, is giving its help in many localities.

One of our fundamental tasks is to make rural work as profitable for the average man as work in towns and cities. As soon as we have done that, the social and intellectual building-up of rural life will follow so fast that the country will cease to be drained by the towns of much of its best brains and character. This work, therefore, goes to the very bottom of our national well-being. It brings a quicker and larger direct

result in money than any form of education that you can name.

"MIGRATORY" FARMING

ONE of the interesting and profitable effects of better agricultural methods is the growing habit of "migratory" farming. A farmer in a Northern state, whose main work is done from April to November, may have another farm or an orchard in one of the Gulf States where he may work from November to April. A truck-farm or an orchard in the South may be made to yield as profitable a crop as corn or wheat or fruit in the North; and the farmer has the pleasanter part of the year for his outdoor work at each place.

To give an example: A New Jersey farmer makes about $1,500 a year from his crop. About the first of November he goes to Florida and cultivates a few acres in celery, which pays for his journey and yields him $1,500 more, clear profit; and he spends his whole year under the pleasantest climatic conditions.

Such a life is a very happy one for the man who knows his calling — the man who is a real farmer; but the mere amateur is no more likely to succeed on one such farm than on the other. The point is, the real farmer is no longer a necessary slave of his acres and of rural isolation. Distance may be profitably eliminated for him as well as for other business men, and he, too, may get profit that comes from cheap travel and transportation as well as the enjoyment of both summer and winter in the country under conditions that make the "tourist" life stupid by comparison.

CROMER AND GORDON

IT HAS been the good fortune of Egypt to have identified with its modern history two remarkable Englishmen — as far removed from each other in temperament, habits of thought, and purpose of life as the West is distant from the East. The names of these two men — Lord Cromer, the diplomat, and "Chinese" Gordon, the soldier — are engraven on its modern history as ineffaceably as the names of Rameses and Cleopatra on the history that has been rolled up like a scroll. Throughout a few dramatic months the careers of the two Englishmen were bound up together, for Lord Cromer was the connecting link between Khartoum and London when Gordon made his last fight. So when one takes up the Earl of Cromer's notable book, "Modern Egypt"— which is a fitting climax to his more than fifty years' of public service — he instinctively turns first of all to see what the great diplomat has to say concerning the heroic soldier. That this should be the case twenty-three years after the curtain went down on the tragedy of Khartoum is a strong evidence of the enduring character of Gordon's memory.

The Earl of Cromer is to be admired for the spirit of frankness and fairness with which he discusses the Sudan campaign, not hesitating to criticize the acts of others and not sparing himself. He consistently reaffirms his own judgment that no Englishman should have been sent to Khartoum — certainly not Gordon, whose appointment he had twice opposed — and regrets that he allowed the combined judgment of others finally to make him distrust his own. However, this was one of those occasions when official judgment was swept aside by popular sentiment. The people of England had made up their mind that the native garrisons in the Sudan must be relieved, and that Gordon was the one man in the British army to execute the task. And, in passing, it may be remarked that the English people are well pleased with the manner in which Gordon kept the faith.

To Cromer's credit be it said that when it had been determined to send Gordon he backed him up to the full extent of his official power. "General Gordon was no friend of the particular official class to which I belonged," he says; and, on the other hand, the British Agent had no great admiration for an officer "who habitually consults the Prophet Isaiah when he is in a difficulty." Yet the official correspondence of that period shifts the blame of Gordon's death from Cairo to London. It will be recalled that Gordon was shut up in Khartoum for several months before any effort was made to relieve him and, even then, the relief expedition was only three days too late. Here is where the Earl of Cromer places the blame:

> "Mr. Gladstone's error of judgment in delaying too long the dispatch of the Nile expedition left a stain on the reputation of England which it will be beyond the power of either the impartial historian or the partial apologist to explain."

He says also that the reason why it was sanctioned too late was that "Mr. Gladstone would not accept simple evidence of a plain fact, which was patent to much less powerful

intellects than his own." But when one considers that the Earl of Cromer often threw his weight in the balance against the Government, it is impossible to avoid the lingering suspicion that he could have saved Gordon in spite of all, had he been sufficiently in earnest.

Under the spell of the Earl of Cromer's charming style, it is easy to feel that Gordon has perhaps been too highly idealized by the whole Anglo-Saxon race. But when the book is laid aside and the soldier's entire dramatic life passes in review, the diplomat's logic loses much of its convincingness. After all, he has told us nothing about Gordon that we did not already know — nothing that England did not know when it insisted on his appointment. Statesmen and diplomats feared that Gordon's religious convictions would alienate the Arab tribes that still remained loyal, overlooking the fact that Gordon had governed in the Sudan before and that most of his work had been accomplished among peoples whose religions differed widely from his own. Aside from this objection, the only indictments that Cromer brings against him are those of inconsistency and "impulsive flightiness." Men who have served in Egypt have said worse things about Cromer.

Inconsistent Gordon unquestionably was, and this to the very end; but it was inconsistency vastly more sublime than that of the men who sealed his doom with official tape. It was most inconsistent in a British officer to stand on the steps of the palace at sunrise, dressed in his white uniform, and receive the final onslaught of the Mahdists as calmly as if he were holding a governor's reception — not even drawing his sword — but this was exactly the manner in which the world imagined that Gordon had died, even before eye-witnesses confirmed the fact. After the last word has been said about his "errors of judgment" and his "flightiness," the reader can recall that the over-lords of England found it necessary to send Kitchener thirteen years later to "smash the Mahdi," which Gordon yearned to do if he had "just one regiment" of British soldiers.

Earl Cromer acknowledges that the main lines of Gordon's character were worthy of admiration, that his religion was sincere, his private life pure. He admits also that the man was wholly unmoved by any considerations of rank or money, and that it was no idle boast when he sent an aide to "tell all the people in Khartoum that Gordon fears nothing, for God has created him without fear." Surely, it would seem, such remarkable qualities in a governor of alien tribes are not outweighed by inconsistency and impulsiveness in matters of detail. At any rate, the postscript to his last letter —"I am quite happy, thank God, and like Lawrence I have tried to do my duty"— will be remembered as long as anything that the Earl of Cromer has written in his book.

For Cromer's sake rather than for Gordon's, it is a pleasure to find this final tribute, by way of summary:

"In the course of this narrative, I have alluded to General Gordon's numerous inconsistencies. I have pointed out errors of judgment with which he may justly be charged. I have dwelt on defects of character which unsuited him for the conduct of political affairs. But, when all this has been said, how grandly the character of the man comes out in the final scene of the Sudan tragedy . . . He died in the plenitude of his reputation, and left a name which will be revered so long as the qualities of steadfast faith and indomitable courage have any hold on the feelings of mankind."

JAPAN AS AN INDUSTRIAL STATE

THERE is one aspect of Japanese activity that has not yet been duly considered by economists or political students —the aspect of an empire as an industrial state. The Government of Japan is going fast on its way to outstrip all others as a proprietor and a director of industry. It will soon own all the railroads, as it now owns and operates the telephones and its great foundry. Not only does the ownership of the natural resources of its islands and the control of much of the mainland remain with the Government, but the Throne has a tenacious grip on practically every kind of industrial activity, through its scores of subsidies and concessions. No ruler can so completely dominate the lives of his people as the Emperor of Japan. He is practically independent of his Parliament; he is not only the commander-in-chief of the army and navy, but he also determines the war and peace standing of both; he may declare war, make peace, and formulate treaties at his good pleasure; and he has a degree of control over private property that other nations would not tolerate.

Partly as a result of a settled policy and partly by reason of the temperament and

loyalty of the people and of their recent coming into the modern industrial world, the Government is (or soon will be) in complete control of the fundamental industries, of the national resources, and of transportation by sea and by land. Yet it is not a despotic government in the sense in which the Russian Government is despotic. And the people, unlike the people of any despotism, are the masters of all the machinery of modern industry.

Japan, therefore, will become a vast organized industrial state — with 50 million employees, increasing at the rate of 800,000 a year. Many of them are trained workmen whose patriotism makes them content to serve. The present tendency, carried to its logical development, will bring about a sort of collectivism such as the builders of Utopias would establish in America and Europe, and such as has never before arisen in the world. The Japanese are the only people with modern tools and methods who prefer this control and this unified direction of all their activities, including the earnings and savings and the financial management of the people.

The rapidity with which wealth may be created and concentrated for national purposes under a system like this is likely to surprise the people of strongly individualistic qualities. The war with Russia left both people and Government poor; and individually the mass of the people will remain poor under this state communism. But the State itself is likely to grow to financial strength out of all proportion to the wealth of the people — especially since the Japanese have taken and are at liberty to take the machinery and the methods and the secrets of organization and of finance which the Western world has slowly found out and perfected at great expense.

By 1915 — the year when the treaty with Great Britain will expire, and when Japan must stand alone or form a new alliance — the Empire will perhaps be in a position to dictate the policy of the Far East. It may hold the mastery of the Pacific. Manchuria may be absorbed as Korea was absorbed, in spite of Russia and China.

Regardless of its political significance, this development of a nation as an industrial state will be a new experiment in history, and it will be a test of government ownership more extensive and severe than we have yet had. It may be that Socialists and Communists will find there the realization or the disappointment of their dreams.

OUR APPROACHING WITHDRAWAL FROM CUBA

NOTWITHSTANDING the skeptical comments of European powers — whose favorite policy is that of adding to their colonial possessions by establishing "protectorates" over unclaimed territories — the United States is preparing a second time to evacuate Cuba. While the date of withdrawal is several months off, our intention is so clearly recognized among the Cubans that one of their political parties has already nominated a Presidential candidate. That the retirement of Governor Magoon and his administration will lessen the feeling of quiet and security, at least temporarily, is generally admitted, but there is no other action that is consistent with our declared policy. It may become necessary for us again to intervene, but our policy is to give the Cubans self-government if they will take it and use it.

Governor Magoon has handled a difficult situation with excellent tact and ability. So quietly and unobtrusively has the work gone forward that a great many people, even in the United States, have almost forgotten that the island is being temporarily administered by ourselves.

In addition to the reorganization of the departments of government, Governor Magoon has done good practical work to develop the people. He has been a builder of schoolhouses, bridges, and roads; he has taught the politician that agriculture is more profitable than office-holding, and also more pleasant; he has made the judicial system an instrument of justice and not of political revenge. He has done what he could to change the native's idea of government, an idea which was recently expressed by a Cuban in these words:

> "Government used to mean to some of us something to resist and conspire against; to some of us something from which to draw personal salaries and make personal profits, and to most of us something to which we must pay heavy taxes without getting anything in return."

Government now means something vastly different, and for this the Cuban owes thanks to the chastening rod. A free, self-governing Cuba has been the ideal of the United States as well as of the Cubans themselves, and it is impossible for us to forget that American soldiers gave their lives in the struggle which

brought that ideal within reach. It is nothing but simple truth to say that the people of this country will be as highly pleased as the Cubans if a second cause for intervention never arises. And the American "interests" there must be content with Cuban self-government.

THE SHIFTING OF ECONOMIC CONTROL

THE British geographer, Mr. Halford John Mackinder, in a recent address before the Royal Geographical Society, predicted that within another generation Canada will become the economic centre of the British Empire, and that the British Isles will lose their predominant importance and come to serve chiefly as a defense of Canada against the continental powers; for he declared that a great world movement is taking place that will shift the centre of wealth to the centre of productivity.

Prophecy is dangerous when the prophet uses dates; and the dweller in England will not be suddenly frightened about the danger of the shifting of power. Yet there is no doubt of some such ultimate economic result of present forces, whether or not a corresponding political change take place within any calculable period. The centre of economic power must at last come — among English-bred people — to the country of the greatest productivity.

The subject is too large for accurate prognostication, and the forces at work are too complicated; but it is an interesting speculation what great changes in the centres of wealth and power the modern organization of the commerce will cause within this century. It was only yesterday that swift travel and cheap transportation began to do their real work, and we have not yet put to use sanitary and medical discoveries which will have far-reaching international results in increasing the productivity of tropical and lowland regions. In finance, too, there will be great changes by the time wealth has accumulated on this continent for a generation or two more at the rate of its accumulation during the last twenty-five or thirty years, and by the time we have established laws and customs for its conservation and proper use. At this latter task we are now merely making experiments.

TO PREVENT WATER-POWER MONOPOLY

THERE are now more bills before Congress asking for water-power sites on streams under Federal jurisdiction than there ever were before. There is great activity in the Southern States; and in California, Colorado, and the Northwest, great companies are getting control of all the favorable sites they can. This development brings us face to face with a new problem. The control of water-power lends itself with particular ease to monopoly. The possible power in any community is limited. So far, about 200 miles is the longest successful transmission line and at that distance there is an appreciable loss of power. The development of water-power sites, moreover, entails a heavy initial expense which tends to throw the business into the hands of a few wealthy men and corporations.

Yet when the people of any community realize that the power necessary for their industries is in the hands of a monopoly, if they think that its control is irksome, as they are likely to think, they will raise the same kind of complaints which have of late resulted in so much ignorant and prejudiced railroad legislation.

But before this ill-feeling arises it is possible to provide control of the future monopoly that will be fair to the capital already invested, attractive to the necessary future capital, and that will prevent legislative attack and popular hostility later. Moreover, the communities which have been built up by the water-power may be saved from entire dependence on the will of the companies' managers.

A general policy will probably be worked out earlier in the West than in the East because the scarcity of water has made its value better understood. The ownership of every inch in many a Western stream has been fought over in the courts. But a fair policy is just as important in the East, which is the great manufacturing part of the country, and, as our supply of coal becomes smaller and the price higher, manufacturing will have to depend more and more on water-power.

OUR INCREASED LOVE OF GOOD MUSIC

THE closing of the opera season brings again to our attention the fact that we are becoming a music-loving people — that is, a people who appreciate productions which bear the same relation to music that "Hamlet" bears to literature. Among all cultivated nations, the support of grand opera is regarded as one measure of civilization, though racial temperament influences the choice of music to a greater or less extent. At any rate, America is showing increased appreciation

of operatic singing — a fact which goes far to atone for the support which we have given to doggerel set to "rag-time" music.

There are two opera-houses in New York City and each was visited by an average of 15,000 people a week throughout the season. The total income of both is placed at $2,000,000, which is $300,000 more than the receipts of the previous season when the tide of prosperity was in full swing. The demand for seats last winter was so frequently in excess of the supply that it has been predicted that one manager, who has no large list of guaranteed subscriptions, may be able to "sell out the house" for two seasons in advance.

But the production of grand opera is not such a lucrative business as the figures might lead a casual observer to imagine. A manager's expenses amount to perhaps $45,000 a week, about half of which goes to the singers. The orchestra costs $5,000 a week, and a sum nearly as large is required by the musical director, the conductors, the stage-managers, and the chorus. About $3,500 goes every week to men whom the audience never sees, the machinists, the electricians, the costumers, the doorkeepers, and so on. Advertising costs about $2,500 a week, and there are other expensive incidentals that cannot be avoided. The production of one opera, "Thaïs," is said to have cost $30,000, and one manager presented twenty-three different operas during the last season.

At the present time, the salaries of opera-singers rank with those of bank presidents and railroad magnates, but the impresarios have learned that the high-priced "stars" bring in the most money. But the operatic sky is not plentifully besprinkled with stars of the first magnitude, and they are able virtually to dictate their own terms. There is good reason to believe that Signor Caruso receives $2,500 for each performance, with a guarantee of eighty performances, which must be paid for whether he be asked to sing or not. Madame Tetrazzini is said to receive even more. In the days of Maurice Grau, the impresario could sit in his office and send a boy out to the anteroom to ask a singer if she could wait until he had finished his morning's correspondence, but the competition introduced by Mr. Hammerstein has changed all this. Now the impresario must chase his songsters all over Europe, with a blank contract in one hand and a certified check in the other, like a boy hunting birds with salt.

A contract with an opera-singer is the finished work of diplomacy, belonging in the same class with international treaties. It must be drawn up in the singer's native language, with all the odds in his or her favor. The impresario is required to deposit in a foreign bank an amount equal to the singer's salary for three or four performances, and these are usually the last three or four, in order to guard against a change of the impresario's mind. Then provision must be made for the star's passage to and from Europe, and anything else that a night's reflection can bring to the singer's mind. Notwithstanding all these hard terms, the impresario is usually a happy man when he can announce to the newspapers that the contract has been signed.

THE EMANCIPATION OF TEACHING

FROM every quarter comes evidence of very remarkable and sweeping changes in the aims and the methods of educational work, as if a plowshare were run through the whole field for the planting of a new crop of practical ideas.

For instance, the National Educational Association has an important committee at work gathering facts and formulating recommendations about rural schools, the task being to find a way better to adapt them to the actual life of the people whom they serve. If it be wisely done, it may have even revolutionary results, for the rural schools have been until lately (and many of them yet are) more or less slavish imitations of city schools.

And the waste of city schools has been startlingly shown in a report of the United States Bureau of Education — the waste that comes from the lack of adaptation to the needs and the necessities of the pupils. Not more than one pupil in three in the large cities goes beyond the seventh grade; not more than one in ten reaches the highest class of the high schools; and only about a fourth of all the pupils remain in school longer than they must remain to learn the three Rs, in the most elementary way. This waste comes in great measure because as a rule the higher grades tend toward a college career, or some elaborate system of general culture, rather than toward the work that 90 per cent. or more of the students must take up at the earliest possible time.

At the recent meeting of the school superintendents of the whole country in Washington, Dean Russell of the Teachers' College, New York, made it very plain that the public school has yet gone only half-way in serving American youth. It is open to all the people alike, but it still does its work and has its aims rather for the benefit of the small minority who can get to college than of the great majority who must at once begin to earn their livings. This is significant, coming from the head of this great school for the training of teachers.

A similar broadening of the conception and the activity of our educational machinery is shown by the insistence of Dr. Leipsiger, the supervisor of lectures of the schools in New York City, that the school houses shall be used for other things than the mere teaching of children for a certain number of hours a day. He has developed the most remarkable extension of education for adults that has yet been grafted on any public educational system; and he is pushing out for still further extension. How may the school machinery be further used for adult education?

And in the Southern States there is such progress in school development and such a broadening of the old conception of education as to mean a veritable revolution. As Professor Claxton, of the University of Tennessee, pointed out in a recent public address in New York, the public school appropriation of every Southern state has been doubled within ten years.

"Five years ago," he said, "there were not twenty-five rural public high schools in the South. In Virginia there were nineteen, and to day there are 308; in North Carolina there were none, and to-day there are 168: in South Carolina there were none, and to-day there are seventy-five; in Alabama forty-two have been established since Christmas, to be opened next fall; and in Tennessee, where there was only one, there are now forty."

Throughout the Union the leaders of educational activity are showing themselves most alert and progressive. They contribute more to the thought and to the progress of the people than their profession ever before contributed — by far. The long and abject servitude to tradition in which practically all our educational work was formerly done is fast passing.

WHAT EUROPEAN POST-OFFICES DO

BY

A. EMIL DAVIES

ALTHOUGH it is to England that the world owes the cheap letter-post, other European countries have displayed greater originality and enterprise in instituting new services.

In the beautiful post-office at Cologne there is a statue of Heinrich von Stephan, the inventor of the mailing card and the principal founder of the International Postal Union, which binds together almost all the civilized nations and is unceasingly strengthening and tightening its bonds. The idea of the parcel post, which is a function of the post-office almost everywhere except in the United States, was also due to Germany, which has, from the beginning, been foremost in initiating reforms and improvements.

Although the International Postal Union, by means of its regular congresses, sets a fixed standard in many matters, it does not interfere with methods adopted by the different countries dealing with their internal correspondence, and it acquiesces in the formation of agreements for special purposes between various nations, without such agreements being obligatory upon all its members.

Thus, all the European countries except the United Kingdom and Servia have a system of making registered letters, parcels, and other mail matter, as well as telegrams (in Europe nearly all the telegraph lines are in the hands of the Governments) so that they are only delivered to the addressee personally, who must prove his identity to the postman or other official. Even in the case of unregistered letters bearing this indication, the post-offices endeavor to respect the wishes

of the sender, without, however, accepting any responsibility.

The post-offices of all the European countries, except those of the United Kingdom, Denmark, and Sweden, collect small debts and present bills of exchange either in the same country or in any one of the countries which have adhered to the agreement. The maximum amount that they will collect on any one bill is 1,000 francs ($200). For example, we will assume that a French trader wishes to obtain payment of an account due to him by a customer in another part of the country, or in a foreign country. He receipts his invoice in advance, fills in a special form, and inserts it in a special envelope to which he affixes a five-cent stamp, writing on the envelope the name of the post-office which has to collect the money. He then mails it at the nearest post-office, and gets a receipt. He may insert any number of bills or invoices in the same envelope. In a day or two he will receive from his post-office the amount of his invoice, less two small charges calculated at the rate of one cent for each four dollars collected, one of these fees being for the postman and the other for the official who collects the money. The two fees together may not, however, exceed the total sum of ten cents.

A cash-on-delivery post is maintained in Austria-Hungary, Belgium, Chile, Denmark, Egypt, France, Germany, Holland, Italy, Norway, Sweden, Roumania, Switzerland, and Turkey. Letters, parcels, and packages are sent for delivery upon payment by the addressee, of the invoice value or other sum fixed. This facilitates dealings between producers and distant customers to a most remarkable extent. In dispatching goods C. O. D. post, the trader writes on top of the parcel, in words and figures, the amount that has to be collected and fills in a special blank, one-half of which is retained by the post-office, the remaining portion (on which a communication may be written) being delivered to the addressee, to whom it serves as an advice note. A small fee, from four cents upward, varying according to the amount that has to be collected, is charged by the post-office for this service, and is usually borne by the customer, it being added to the invoice.

The Italian post-office issues postal letters of credit made up into books, whereby a person traveling throughout the country is relieved of the necessity of carrying large sums of money on his person, as every village has its post-office at which one of these forms torn out of the book may be converted into cash.

In Switzerland, the post-office will serve a summons at the low cost of four cents.

The Swiss post-office also has a special service for the conveyance of books from the booksellers to a customer in any part of the country, *for inspection*, and if the customer does not wish to purchase, he may return the books free of charge within four days. For the carriage of the books in the first place, the post-office only charges a cent or two. For libraries or private individuals exchanging books, the Swiss post-office carries parcels of books, not exceeding four and a half pounds, for three cents, and carries them back to the original sender free of charge.

All sorts of minor services are performed by the German post-offices. Here an individual can obtain a postal-identity certificate which is found most useful in cases of traveling. It costs twelve cents and consists of a card giving a short description of the appearance, a specimen signature, and a small photograph of the person named thereon, the genuineness of which are certified by the post-office within whose area such person resides.

Paris, Berlin, and Vienna have a pneumatic post, whereby a letter handed in in one part of the city is delivered in any other part of the city in less than an hour, at a cost varying from six to eight cents. These missives are the famous *petits bleus* of Paris.

Many of the European post-offices convey passengers on the high-roads by special coaches, and the writer has had the quaint experience, in a little village of central Europe, of being handed by a local postmaster a receipt for *himself* and baggage, the post-office making itself responsible for the safe delivery of both.

The Italian Government shows great solicitude for the welfare (and savings) of its subjects abroad, and Italian warships in foreign waters accept deposits and pay out withdrawals in connection with the Italian post-office savings-bank, which is certainly a peaceful use to make of these monsters of destruction. Most Italian consuls also receive cash from their compatriots, and issue in exchange therefor consular postal orders at a very cheap rate.

IN THE HANDS OF A RECEIVER

MANY thousands of people have this year become involved in railroad and industrial receiverships. The Westinghouse Electric, the Seaboard Air-Line, the Chicago, Great Western, the Western Maryland, and the International & Great Northern, which are in the hands of receivers, had outstanding in the hands of the public many millions of dollars of stocks and bonds. People constantly write to THE WORLD'S WORK to get advice about these matters. The questions take two general forms: What shall I do with my bonds? And shall I pay the assessments on my stocks if such assessments are levied?

A receivership does not always mean that the road or the property has failed to earn money needed to pay its interest charges. In fact, all the receiverships so far this year were caused by the maturing of debts, rather than by interest charges. In most cases, in the long run, the first-mortgage bonds will be worth par and interest, that is, their holders will lose nothing at all through the receivership. Very often, the appointment of a receiver is to safeguard the interests of bondholders.

For that reason, it very often happens that the long period of uncertainty that usually comes before bankruptcy sees a big decline in the best bonds of the afflicted company, but the receivership itself is followed immediately by a rally in the prices of these bonds. To illustrate, one may cite the remarkable instance of the decline and rally in the first-mortgage bonds of the Chicago Terminal Transfer Company in the winter of 1904–1905. There were more than $15,000,000 of these bonds, and they were a first lien on about 277 miles of track, located mainly right in Chicago, and a complete terminal plant in that city. During 1904 it became evident that the road could not earn its interest charges and it was in trouble of a serious sort. Holders of the bonds became frightened and threw overboard huge amounts of the bonds. They dropped down to a little over $700 for each $1,000 bond.

Then came the default, which everyone knew would come. The trustees announced that the coupons would not be paid on January 1, 1905. Since the long decline had been based on the fear of this very thing, it seemed logical to expect a further decline at this time. The contrary happened. Within a month after the default, the bonds sold at $990 for a $1,000 bond. People who had held on through the trouble found that they could sell their bonds at a higher price than at any time while the company was solvent.

This fact may serve as the first chapter in the study of bond investment. In connection with it, consider the following short list of bonds:

	RATE	PRICE
Third Ave. 1st. New York	5	102
International & Gt. Nor. 1st.	6	101
Ohio Southern Div. 1st.	4	78
Ind. Dec. & Ironton 1st.	5	98½
Seaboard Air-Line ref.	5	92

These prices are not remarkably high, of course, except that they represent bonds on roads now in the hands of receivers and in bankruptcy. It may be noted, for instance, that one must pay for the first 4 per cent. bonds of one division of the Ohio Southern, bankrupt, $780 per $1,000 bond. That is a much higher price than is commanded by many good bonds of railroads and industrials that are not bankrupt, and are in no danger of bankruptcy in the near future.

The holders of real first-mortgages on railroad property that has been in operation for some time need have little fear of the receiver. Almost the very first thing a receiver does is to apply to the courts for permission to pay the interest of the first-mortgage bonds. Many people who own the old bonds of the Seaboard Air-Line, the Great Western, the Cincinnati, Hamilton & Dayton, and other bankrupt roads have been surprised, after reading the announcement of bankruptcy, to receive their regular checks. It can be said that this is the regular custom, so far as concerns the real first liens on the property.

From these facts may be framed the answers to many questions, notably the recurring questions from holders of the Western Maryland first 4 per cent. bonds, the Wabash-

Pittsburg first bonds (not in bankruptcy, but selling at prices that seem to promise it), the Seaboard Air-Line bonds, and bonds of such weak companies as the Southern Railway, the Erie, the Wabash, and others. The answer is: hold your bonds if they are first lien, or underlying bonds. A receivership will not hurt you in any way.

Now, as to the other bonds on the same properties, what should one do? The answer is multiform, for each bond must be considered separately. For instance, the Erie has an issue of collateral trust bonds secured on the stock of the Pennsylvania Coal Company. Now, if the Erie should collapse again, it is unreasonable to suppose that it would allow anyone to buy its coal lands away from it. These bonds, therefore, should be held through whatever comes. On the other hand, the convertible bonds of the same road should, in a reorganization, receive abrupt and painful treatment. They might not be worth more than twenty cents on the dollar. Such issues should not be held except by a business man who wants a speculative chance.

On the whole, we do not advise bondholders to be frozen out by a receivership. In nine cases out of ten, it will pay to put your bonds in with whatever committee is formed for their protection and to take your chances with the road. In a reorganization, the main burden should fall upon the stockholders, not the bondholders. You may have to wait a while for your returns, but they are pretty sure to come, provided, of course, the property is not some wild-eyed dream of an enthusiast, and will be financed by a real banking house, not by a pirate.

These considerations may serve to answer the dozens of questions that come concerning the bonds of the Seaboard, the Southern, the Erie, Westinghouse, and some of the smaller roads. Hold your bonds, if you have them at a big loss, because the future, in all human probability, holds better things for you than anything you can get at this rather critical moment.

Now, as to stocks, this is a very critical question indeed. More queries seem to be concerned with the common stock of the Chicago Great Western than with any other. People who have lots of it, and they are many, want to know whether it is not a good thing to buy more, and thus average up the price of the stock they own. Most of these people seem to forget that stocks can be assessed in a reorganization. If a man holds 100 shares of this stock, he may be called on to pay $1,000 in assessments. He ought to reckon on this fact in considering the present prices. The plan of fixing up the company is not ready for announcement when this is written, but it will be likely to assess the stockholders.

People remember 1893, and what followed it. The fact that the Harriman fortune is founded on the genius of Mr. Harriman in going in during that period and investing his money in the stocks of the bankrupt road seems a lure to other people to try and do the same thing. This fact is remembered, while the other factor of the equation that resulted in making Mr. E. H. Harriman a colossus is forgotten. That is the fact that he worked from the inside out, while the average investor merely makes a feeble effort from the outside in.

If any of the bankrupt railroads of to-day were another Union Pacific, the Harriman process might be repeated by another Harriman, or the same one. But even the layman can hardly compare the Chicago Great Western, or the Western Maryland, or the International & Great Northern with the old Union Pacific. There are possibilities, but they are meagre and scant beside the possibilities of 1893.

If a man goes to the market and buys the assenting or common stock of the Westinghouse, he will have to pay an assessment, in the form of a subscription to new stock at high prices. If he does it, and waits patiently for a few years, possibly he will get results that will startle him. If the company should go ahead, and finally pile up an earning capacity of $10,000,000 net, a year, he would get very rich returns on his investment. On the other hand, there is always a chance that the company will not go ahead. It might, by chance, go backward. A buyer of this stock, therefore, at the present time, is not so much an investor as a speculator. He takes several chances; first, the chance that the property will not be able to reorganize under the present plan, and may drift along for years without being saved; second, the chance that it may be necessary to assess him higher than the plan contemplates; third, the chance that for the next two years or more the market may have to stand a whole

lot of selling from the "inside," which everyone knows is embarrassed to the extent of about $8,000,000; fourth, the very palpable fact that, even if the plan goes through, it may be several years before the stocks will pay much, if any, dividend.

The answer to the questions about buying stocks in a receivership will be fairly plain from the above. You get large chances of profits, but they are surrounded by large chances for a long wait, for further expense that may cut down the profits, and even for ultimate loss. If one wants an illustration of the vicissitudes of a receivership, one may study the Cincinnati, Hamilton & Dayton. It has been in the hands of receivers for three years now; yet a holder of its notes may go and sit on Mr. Morgan's doorstep for a month, and ask questions every hour of everyone that goes in or comes out, and he cannot find out whether his notes are going to be worth ten cents on the dollar, or ninety-five. The plan, if there be one, is still kept a deep, mysterious secret.

Another question that comes up every now and again in times of trouble arises from the banking habit of forming a committee, usually called "protective," to look out for the interests of bondholders. A company fails; then advertisements appear, signed by a banking house of which you never heard, perhaps, asking you to deposit your bonds before such and such a date. You want to know whether you had better do it or not.

In nine cases out of ten, it pays. In the tenth case it is merely a device to muzzle you while someone goes through your pockets. The only rule that may be taken as general is this: Deposit your bonds, on condition that the agreement you are asked to sign permits you to take them out again when you want to, without any great expense. If the agreement has a clause in it allowing the committee to charge you more than 1 per cent. for its expenses, be careful. If it has an indefinite permission for the committee to go ahead and do what it likes and assess you for the cost, stay out. If it will not let you out in case you want to sell your bonds, or make a fight on your own account, if the mortgage will let you, stay out.

In any case, do not deposit the bonds until you have read the agreement. If you have a lawyer, let him read it with you; but don't let him persuade you that he can make your fight much cheaper, for he cannot, in ninety-nine cases out of a hundred. This agreement should be sent you, on request, by the banker who signs the advertisement, or the trust company or other agent named as depositary. Look it up carefully for, if you do not, you are going into a blind pool, which is the way of the lamb.

Above everything else, keep your eye on the main chance. That is merely the chance that the road, or the company, may get on its feet again and do business in the old way. If you are asked to do anything reasonable that will work to that end, do it. Even if you have to give up some of your property, do that; for the only way to get back into safety and solvency is to cut loose from the receiver. He may be an excellent man, but he pays few dividends. Mr. Judson Harmon is receiver for the Cincinnati, Hamilton & Dayton, but the happiest day for the stockholders and noteholders of that road will probably be the day the road is taken out of his hands and entrusted again to the tender mercies of its officers.

WHAT INSURANCE A MAN SHOULD BUY

The World's Work will publish here every month an article of practical help about all kinds of insurance

FOR the average man of forty, in good health, with a wife and two children, living in a town or small city, and owning his own home, what sorts of insurance ought he to carry and how much? And what are the general principles that ought to govern his expenditure for insurance? As a matter of curiosity, he may find out by a little inquiry that the following kinds of insurance are sold, and this is by no means a complete list:

Life, fire, accident and health, burglar, marine, deposit, bonding, employers' liability, public liability, general liability, plate glass, teams, credit, automobile, fly-wheel, boiler and elevator, sprinkler leakage, tornado, general water damage, physicians' defence, messenger, and salary.

To find a sound general principle it is safe to reason first negatively in this way:

A healthful, active man ought not to carry insurance of any sort in sufficient sums seriously to embarrass him; for then it becomes not insurance proper but a burden — not a help but a hindrance. This is the same as to say that he should not try to make money by insurance but only to make sure that he will not lose it if any ordinary or reasonably-to-be-expected misfortune overtake him.

To make a positive test of what insurance he ought to have (within the limits of his income) he ought to analyze every obligation which he owes to everyone and buy insurance that would recompense them for any contingency which may befall him. Satisfying this test he will find that he ought to have life insurance; he ought to have fire insurance; he ought to have health, and, if he travel much, accident insurance; if he lives near a big city, or in a populous neighborhood where crooks can dispose of stolen goods, he will probably need burglar insurance. The statistics in New York show that it is at least as necessary as fire insurance.

The following is a good general selection for a man with a $4,000 income in the circumstances described above:

Kind of Policy	*Amount*	*Yearly Premium*
Life (taken at 28 years of age)	$10,000	$190
Health and Accident	5,000	60
Fire	20,000	30
Burglary	3,000	30
	Total	$310

Yet each man's circumstances are different and his insurance ought to be made to fit his particular circumstances, and when he has made some such general plan as the above the questions of different policies and different companies come up. These will be discussed in later articles in this series. This article deals only with the general principles.

Life insurance (it would be more accurate to call it death insurance) differs from all other kinds. It is based on a contingency which happens to all men, while a man might pay premiums on a fire-insurance policy during his lifetime, and his children's after him, without ever having a fire. There is another difference also. Other insurance usually benefits the person who pays the premiums. Life insurance, of course, never does. Sometimes a policy combines life insurance and investment features, and in this case the investment feature may benefit the insured, but never the life-insurance part.

So far as life insurance is concerned, there are four periods in a man's life. The first period is from the time he is born until his education is finished and he is ready to earn his own living. During this period the person who is paying his bills ought to have insurance so that in case of death the boy's education would continue. The second period is during such time as he is supporting himself with no one dependent on him. During this time he may need fire, accident, or many other kinds of insurance, but not life insurance, for no one would be financially harmed by his death. The next period, which in the great majority of men's lives covers their whole working period, is when they are earning not only for themselves but for some one else. This some one else, beside their wives, children, and dependent relations, includes any creditors that they may have, their business partners, anybody in fact who would suffer a financial loss in case of their death.

The fourth period is that part of a man's life after he has ceased to exert an earning power. During this period, whether he supports himself or some one else supports him, it is foolish for him to pay life-insurance premiums unless it is merely to finish payment on a policy taken out before that situation arose.

A fire-insurance policy usually yields as nearly the exact value of the loss as can be determined; and a policy ought to be large enough to cover the full value of the house insured and its contents.

For men on salaries, for anyone whose absence from business entails a loss of income, a health and accident policy is very necessary; for if a man is injured or taken sick he may not only lose his income in consequence but he inevitably becomes an added burden to his family. Without insurance, one such experience may jeopardize his whole financial scheme.

A burglar policy ought not to include the total value of the goods in the house, but only those which are easily removable. There is no use in paying burglar insurance on a piano or any other bulky thing. There is another class of valuables which the insurance companies will not insure. Articles like coin

collections or old pictures, things which have an added curio or sentimental value, are not sought as risks by the companies, because there is no way of putting a fair valuation upon the curiosity or sentiment which they evoke.

Such general principles ought to be followed, and then there is one other which applies to all kinds of insurance alike: Use the same care and business ability in signing an insurance contract that is used in any other. Many a man of common sense, when he comes to buying fire insurance on his house, asks the agent what the contract provides, pays the premium, and puts the policy in the safe. He gets a burglar insurance policy which covers many things but he does not know accurately what they are. He may be paying half his premiums to recompense him for the possible loss of diamonds which he does not own. This slipshod method of buying insurance is not the exception. It is almost typical. Men who are careful with every business paper they sign, who know thoroughly the provisions of their real-estate purchases or their rent contracts, buy their insurance almost haphazard. They will often, too, pay a lawyer a couple of hundred dollars to draw up their will to dispose of the estate consisting mostly of life insurance which they bought without understanding it.

An insurance policy, fire, burglar, life, or any other kind, is like any other contract and should be so regarded. If the purchaser does not wish to have the trouble of finding out what he is buying, it will often pay him to hire a lawyer to find out for him. If the usual printed contract for fire or burglar insurance leaves out articles which the purchaser owns and values highly, the thing to do is to have them included. The companies are willing to do this. It is to their advantage that the people thoroughly understand insurance, for the more they understand it, the more, in the long run, they will buy. It is obviously to the advantage of the purchaser to understand, so that he may buy only what will benefit his particular case most.

A man ought to carry all the kinds of insurance that his situation in life, his means, his place of residence, and his occupation demand for safety — no more. And he ought to show the same judgment and care in its purchase that he does in his investments.

EDWIN AUSTIN ABBEY

THE CAREER OF A GREAT AMERICAN ARTIST

BY

HOMER SAINT-GAUDENS

EDWIN AUSTIN ABBEY is said to have often repeated the antiquated saw that power of taking pains rather than unbridled brilliance leads to success. In his own case certainly, this ability for work has guided his skill and feeling for art until he has become master of painting. For, to control his dramatic talent and insight into character, he has learned both manual dexterity with his medium and the grammar of his language — drawing, color, the use of values, proportion, composition in line and mass, in light and shade, decoration, and architecture. Consequently his canvasses stand before the public, large in style, yet filled with a wealth of detail, the product of a painter who has fused the good qualities of those painters who set down from memory forms noted in instantaneous flashes of sight, with the best of those who sacrifice themselves to minute delineation. And consequently, through a process of telling of things past, he produces effective, tangible signs of the extraordinary visual images floating in the poetic fire of his mind.

Mr. Abbey, born in Philadelphia in 1852, studied in the Pennsylvania Academy of Fine Arts from the time he first betrayed an active interest in drawing and painting until his nineteenth year. At that age he was fortunate enough to obtain a position in the art department of Harper Brothers, where his talent

took shape in the company of such capable men as Mr. John W. Alexander, Mr. Howard Pyle, and Mr. Joseph Pennell. First, for the good of his artistic soul, or otherwise, the art editor compelled him to exercise his facile imagination by drawing pictures of places and incidents that he had never seen. Then. as he succeeded so well at his task of overturning the Vendome Column and of creating battles with his pencil, he was speedily set at sketching historic bits between Philadelphia and Boston. And, finally, upon his again producing most successful results, his chief decided to send him to England to absorb local color for illustrations which he should make for the poems of Herrick.

Accordingly, when he crossed the Atlantic in 1878, his career first assumed its tangible form, since the serene beauty of the Midlands of England, the woods, the copses, the hedges, held him fascinated; and, so soon as he completed his contract in America, he returned to the charm of those mellow surroundings. There, in course of time, he gravitated to Broadway, a small village not far from Stratford and Kenilworth, where he occupied a house built in 1563, that stood at the foot of a long hill over which a yellow road wound among soft trees. Later he moved to Morgan Hall in Fairford, Gloucestershire. The change was not great, as once more he entered a vine-clad building of three hundred years, and once more he enjoyed the atmosphere of smoke-stained, timbered ceilings and geranium-filled windows. Here he built for himself a studio exactly suited to his tastes; not a crazy curio-corner fashioned to afternoon teas and Van Dyck beards, but a large, bare, deep-toned workshop. Therein to England, America surely has lost Mr. Abbey, since, though he is a member of the National Academy of Design in New York, the Royal Academy of England laid claim to him in 1898 and ever since has held his strong allegiance.

"The Hesperides and Noble Numbers," by Robert Herrick, work on which brought about Abbey's desertion of the United States, was published in 1882; and with "The Quiet Life," published in 1890, and "The Comedies of Shakespeare," published in 1896, it forms a series typical of his virile but tempered pen-and-ink drawings. His illustrations reflect that charm of English detail which tempted him across the ocean—dream-filled, bee-drowsy gardens, rooms alive with fire-light, time-worn roofs about flagged courtyards, the fragrance of spring pinks, of cherry trees, of July hollyhocks, and the sounds of pulsing water. He had advanced in steady strides with growing clarity and color and with increasing understanding of emphasis. From the first he has established the merit of deliberate methods. Since these steadily ripening productions, candid, forceful, and complete, yet light and delicate, he has developed through selective tact in the use of minute and curious knowledge gained only by patient research. Often, of course, he has reflected his surroundings, but when the subject has required it he has taken studious trips to Italy to produce the wealth of invention and resource of details that have made his mental point of view appear to belong to the age of what he sees.

Yet imagination in Mr. Abbey's drawings is not restricted to records of fact, nor to the literal rendering of form. His especial merit lies in his unmatched feeling for character and for art. In the explanation of character he is well represented by the diversity and the personality of his women, who are filled with humor and grace. With the more serious and passionate moments, when he attempts to represent such incidents as "And for these courtesies, I 'll lend you thus much moneys?" in "The Merchant of Venice," perhaps he cannot satisfy all who have justly enough preconceived notions of Shakespeare. But if the critic puts himself in Mr. Abbey's place and accepts Mr. Abbey's conception of the characters, he will become amazed by the revelations of the artist's appreciativeness. On the score of art, with the drawing quite disassociated from the text, Mr. Abbey reaches an unusual height through his modeling, elevation, action, and disposition of mass. He never loses charm or force by falling into the many thoughtlessly accepted conventionalities of his medium. Nor is he given to effects. He marks the features by a few expressive lines and for the rest he produces a sense of sunlit texture rather than of silhouette, by employing many little lines instead of one with a sweep — a hard task to achieve while yet avoiding pettiness. Through all he evidently reverences the variety of truth, and combines it with a regard for weight and coherence.

Therefore, in the realization that the calling of an illustrator is as noble in art as any other

calling, provided the artist makes it so, Mr. Abbey has continued to bend his efforts in this direction, even after accepting the use of canvas and oils, until he has numbered himself with the first group of the first rank of artists. Of course, on this count of illustrating, the hypersensitive enthusiast of pure painting concludes dealings with Mr. Abbey. The enthusiast insists that an illustrator must be one who forces pictures to tell a story. For the enthusiast explains that, as painting is the art of visual reproduction, a picture of typical excellence should only appeal directly to the eye, should stand exempt from suggestion of distracting incident, should arouse no thoughts regarding the subject of the painting, or lead astray his tender mind from the delight of simple seeing. To him, the various arts must each be relegated to its own backyard. Words, and words alone, may hint at ulterior thoughts. Rubens's "Descent from the Cross" must be abjured, as the tale it relates interests more Christians than any other tale.

However, it is difficult to understand why a painter should be barred from combining his enthusiasm over his manner of work with his desire to express in it human emotion. That men do tell stories in written signs becomes no reason for preventing them from telling stories also with paint. Surely the artist is not to be considered small or great because his subject possesses or lacks suggestions other than those of form and color. Surely a canvas is not to be condemned because it stirs the remembrance or piques the curiosity, besides delighting the eye. Surely all graphic art is true art when artistically conceived and executed. Surely a superb attitude remains a superb attitude whether it illustrates "Despair" or whether it signify only that the gesture has sown wheat seed. Surely the art of painting would be a pitifully weak art if it might grow only when its surroundings are cut away.

But, what is more to the point, the æsthete who quarrels with Mr. Abbey fights only very thick air. Nine times out of ten, Mr. Abbey's pictures tell no story in the sense that such a composition as "The End of the Song," by E. Blair Leighton, in the Royal Academy, tells a story. Take their titles from them, and the worst that can be said from the æsthete's point of view is that a vague "What does it mean?" lurks in the shadows of the delight created by the visual images that the pictures present. For Mr. Abbey never buries his art in his "story" with the bald transcription which is really blameworthy. On the contrary, he fills the figure of his text with the vitality of his art, as in "Richard, Duke of Gloucester, and the Lady Anne," illustrating Act I. Scene 2 in Shakespeare's "Richard III." Here the Duke is in vivid red. The procession of black-gowned figures about the bier carry inverted pikes. The Lady Anne wrings her veil in her agony. Here, then, stands a conception that from other hands might relate the grim love protestations of the humpbacked Duke through an affected miscellany of old-time odds and ends. At the painting from other hands the visitor could scoff, but with Abbey the archæology and the story, if anyone can call it a story, express only by-issues, though masterly ones. What appeals first and almost wholly to the onlooker is a warm, direct contact with the mind of Mr. Abbey. For he drives into the imagination not only an insight of the meaning of Shakespeare's play, but an appeal, of itself as instantaneous and as absolute as the appeal of music. Therefore, while Mr. Abbey remains an illustrator, his canvasses stand of value not so much for what they suggest of the outside world as for themselves. And he takes his place as a painter and an artist, since he expresses his ideas in harmonies that alone arouse the desired pleasurable feelings. He does not add something of Abbey to his illustrations; he adds something of his illustrations to Abbey.

Mr. Abbey has modified the abruptness of the shift from pen and ink to oils by a number of productions in water-color and pastel. Of his water-colors, "The Sisters," an excellent example, made clear his simple composition and refined draftsmanship. Of his pastels, which he has used to their full extent without attempting to force their limitations, "Beatrice" permitted him to develop the glory of ampleness in a manner less subdued than in his painting; and "The Golden Dish," where a girl in a full robe descends a flight of stairs with a flower-filled bowl in her hands, explains how he could take advantage of that quality in chalk which allowed him quickly to throw off his old methods and to plunge into a rich harmony of color. Yet, charming as he becomes in both these mediums, he always gives in them an impression

that he simply experiments with facile tools to learn what finally he may attempt on canvas.

Mr. Abbey's definite announcement that he was thoroughly a painter came with "A May Day Morning," which he exhibited in 1890 in the Royal Academy. The subject is one that requires the full craftsmanship of the medium, for it contains the intangible, cold light of the early morning of an English spring. At first glance he seems but to have turned over his hand to display a natural unstudied grasp of color, yet a little thought shows that he has skipped no pages in his evolution and that he has developed into paint naturally, as he has filled his later drawings with that "color" in black and white which artists talk of so glibly and which laymen find so hard to understand.

The effect of his early training with the pen, however, has clung long to his canvasses. In "Pavanne" he is still a draftsman with drawing facile and charming, yet with values uncertain and minute handling of details not bound together by a freedom of final touch. But in other paintings of the time, he promises the forceful qualities of the near future. With "Richard, Duke of Gloucester, and the Lady Anne" he has courageously developed a bold and rich arrangement, has freed his quick eye and clean touch in the delicate face of the Lady Anne, in the dignity and yet mental and physical deformity of the Duke, and has given rein to the natural turn of his mind toward vigorous composition and toward expressing the poise and significance of arrested action. With "The Bridge," on the other hand, he has exemplified his grasp of a lighter vein; for here, where a wandering minstrel sings to the monks as they cross the stream into their monastery, Mr. Abbey has proved that while on one occasion he can command by his virility, on another he can coax by his genius.

Mr. Abbey's full development, however, which he reached rapidly, has become most popularly known in this land through his decorations for the Boston Public Library. There, the trustees asked him to undertake the wall paintings for the delivery-room, a badly lighted chamber finished in dark wood. The building was also to include work by M. Puvis de Chavannes and Mr. John Singer Sargent. M. de Chavannes had attained great reputation as a painter who designed his canvasses strictly for their effect upon the surrounding architecture, a painter whose pale tones and austere drawing lay as far as possible from the spirit of to-day—while Mr. Sargent, on the other hand, represented the modern of moderns even when he sought archaism, which he imitated with unaccustomed brilliancy. Evidently, the three men could not have a foot of ground in common — M. de Chavannes restraining himself to the æsthetically acceptable symbolic scenes; Mr. Abbey alive with the desire to master the outlawed realistic stories; M. de Chavannes insisting on the decorative canons, Mr. Sargent planning to elude them, and Mr. Abbey hoping to ignore them. Hence, Mr. Abbey has gone his own way in this case, as with most other interfering conventionalities, has illustrated legendary heroes in armor, as the Renaissance painters illustrated the biblical stories familiar to their age, and has made no attempt to reproduce flat surfaces, but has dealt, as he always dealt, with elastic shadows and atmospheric depths.

First, therefore, he cast about him for a subject, which to him meant a story. He began by considering the plays of Shakespeare and such sources of literature as "The Cid," "Amadis of Gaul," "The Song of Roland," and "The Ring Cycle." But his choice finally centred upon the theme of "The Holy Grail," since it seemed most general to all Christendom; for the romance apparently originated in Wales or Ireland or Brittany and spread through all western Europe. Naturally he found many conflicting legends confronting him. However, with sincere ingenuity and earnest labor, he delved to the heart of the whole and evolved a cycle wherein Sir Galahad, as a mediæval knight, rises as the hero of the entire Arthurian romance and displays a convincing force, faith, and noble courage that typify the progress of the human soul.

And the result has been that, just as every artist develops his temperament through his peculiar choice of subject, Mr. Abbey has made his illustrative painting as much a language of purely visual emotion as ever did the most ardent follower of the precepts for the purification of the arts laid down in Lessing's "Laocoön." His panels have been too often described for the description to bear repetition in detail. It is sufficient to recall that he leads his red figure of Sir Galahad — the figure of life — through a maze of persons

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GALAHAD, THE DELIVERER

A part of "The Quest of the Holy Grail," frieze decoration in the Boston Public Library

Photograph by Rice, copyright, 1908, by Senator W. A. Clark

THE TRIAL OF QUEEN KATHARINE

Reproduced, by permission, from the original in the possession of the Corporation of Liverpool

"O MISTRESS MINE. WHERE ARE YOU ROAMING?"

Copyright, 1898, by Edwin A. Abbey

THE PLAYERS' SCENE IN HAMLET

Copyright, 1902, by the Carnegie Institute

THE PENANCE OF ELEANOR

Copyright, 1901, by E. A. Abbey; from a Copley print, copyright, 1902, by Curtis & Cameron, Publishers, Boston

THE SEVEN SINS

A part of "The Quest of The Holy Grail." frieze decoration in the Boston Public Library

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FAIR IS MY LOVE

Copyright, 1897, by E. A. Abbey; from a Copley print, copyright, 1897, by Curtis & Cameron, Publishers, Boston

PAVANNE

Photograph by Rice, copyright, 1908, by Senator W. A. Clark

"WHO IS SYLVIA, WHAT IS SHE?"

potent in action, rich in elaboration, and brilliant in coloring that is Germanic without being offensive. The paintings are modern. They are unconventional. They are intimate without destroying the apparent size of the room. But, most of all, they raise an exclamation of gratitude from visitors hitherto in the habit of seeing lateral decorations almost invariably split into three formal groups. For the visitors now find, as in the painting of Sir Galahad being led to the Seat Perilous, that their eyes are drawn slowly from left to right with refreshing halting-places upon the way. Yet, for all the modernness, Mr. Abbey never lacks dignity. Such a condition the public too often expects, because, unfortunately, realism so frequently buries dignity that the public is prone to believe that this must always be the case. He, however, makes it clear that dignity is not to be governed by passing conventions, but that dignity exists or is lacking in the canvas only as it exists or is lacking in the painter.

While the Boston Public Library decorations have spread his name through America, a number of superb compositions have elevated it in England. Some of these, such as "The Trial of Queen Katherine" and "The Penance of Eleanor," have fortunately come to this country. "The Trial of Queen Katherine," in especial, displays the direct appeal that Mr. Abbey can deliver from a crowded canvas, an appeal especially remarkable when contrasted with the complex emotions brought not so vividly by his comparatively simple painting of the Players' Scene in "Hamlet." For in "The Trial of Queen Katherine" his imagination fires a gorgeous realism, glows in the reds about the throne and in the gowns of the cardinals, and compels the attention through the long sweep of draperies. The picture represents Mr. Abbey at the height of his powers.

Here, in "The Trial of Queen Katherine," he shows forcibly his manipulation of technique to arouse the emotions. The dignity of well-handled color that does not confuse the study of form he masters in its most difficult phase; he succeeds in painting absorbing contrasts where many men would content themselves with producing satisfactory harmonies. Moreover, his colors convey their textures luminous with varying light. That is, they live fundamentally clear in an atmosphere filled with normal reflections rather than in the customary dead air of the studio. The folds of a gown do not appear merely brighter here or darker there, yet always in the same tint. They flush more blue here and more red there, as they would when animated with actual life. To say that he draws with correctness is nothing unusual. A great modern painter must model with absolute accuracy both in lines and in planes. For him drawing is not only construction; it signifies the placing of the right things in the right positions to give unconscious pleasure. It is not only a drawing absolute in itself, but a drawing that marks a mastery of composition. And his composition rises above the usual exercise of balance and rhythm. Therein he takes his categorical details and fuses them into the life of the whole. Therein he applies his knowledge of action and energy to his canvasses in a way that reproduces the effect of deliberate or swift movement, not only in individual figures, but over the entire surface. To laymen, Mr. Abbey's brush runs easily across the breathing groups, but artists appreciate the labor that is hid. For the effect of a gesture in life must be simulated by a combination of lines that are still. So it will not suffice to select some actual movement that the gesture would make as it progressed; such a selection would not connote the entire swing of the gesture. A snapshot of a man walking rarely arouses a sense of progress. The artist must invent an attitude that suggests the entire gesture, an attitude that often would never be in the original gesture at all; and Mr. Abbey has devised such a condition, not only for the occasional outflung hand, but for the whole painting.

Mr. Edwin Abbey, then, stands as an artist who with initiative force and dignity frankly reproduces what he best cares to see from the windows of his mental house. His vital and accurate vision prefers to rest upon mediæval garments wherewith he may clothe his inventions, wherewith he may enjoy his attempts to glean poetic suggestion by truth to facts, passing over what he dislikes and emphasizing what he admires. So, through these story pictures, he presents forms not in but of his compositions; that is, the compositions seem to grow out of the forms; the forms are not apparently cut to fit the compositions. And he centres the onlooker's interest upon these forms until the onlooker cares only for the charm of youth,

ruddy and living, for the grace of women with features as alluring as those of Holbein's "Lady Heveningham," and for the dignity of age. To such an end Mr. Abbey has refrained from acrobatics and innovations. He has never undertaken presumptuous efforts beyond even his wide limitations. He has never set forth results that are thin through the haste so often misnamed brilliancy and dash, nor confused and disproportionate through over-finish. Unwarped by long schooling — a dangerous precedent for a man less strong — he has mastered the old, step by step, and formed it into a new, richly leavened by his personality. He has reached a noble eminence wherein his painting never displays conscious effort instead of spontaneity. He places before the world in a visible form his conviction and love of beauty—and this is a great achievement.

WHAT IS THE MATTER WITH THE THEATRE?

THE PLAYS OF THE SEASON — THE OLD SCHOOL OF ACTORS PASSING AWAY — THE RESPONSIBILITY OF THE PUBLIC

BY

JAMES S. METCALFE
(THEATRICAL CRITIC FOR "LIFE")

OPTIMISM is a cheerful quality, but it has its dangers. It is too likely to be inspired by hope, or good disposition or good physical condition rather than to be founded on fact. On that account the optimistic view may lead us to overlook and therefore neglect increasing evils which otherwise we might take the thought and trouble to curb or remedy. For instance, when so eminent a theatrical authority as Professor Brander Matthews, in a recent article printed in a widely read periodical, tells the public that the art of acting and the drama generally are not in a period of decline and that we have no reason to be dissatisfied with present conditions, his optimism is calculated to do harm. It serves to confirm in their own opinion many persons whose bad taste is responsible for the encouragement of worse things and the discouragement of those who are seeking to raise the critical taste of the public.

Mr. Otis Skinner in a recent interview also voices this dangerous optimism. He says, "I grow tired of the old cry that we haven't any good acting nowadays. It, too, is the same old rot. Look around you in the plays of the present hour in New York. For example, how about Russ Whytal, Frank Keenan, Kyrle Bellew, David Warfield, Theodore Roberts, Guy Standing, the whole cast of "Paid in Full," W. H. Crane — I might name a score more and then not exhaust the list. Daly's and Wallack's were two stock companies and training schools which could not be duplicated. But it is wrong, nevertheless, to say that we have no training nowadays." In his short list, Mr. Skinner names practically all the best actors on our stage to-day and every one is either the survivor of an earlier generation or an importation from abroad.

To argue against such optimism is not a thankful task. The position of devil's advocate is not one to be assumed for pleasure but in the case of the theatre of the present it is not an onerous one. The institution is in constant evidence and betrays its own imperfections with thousands of voices. Despite the facts that in America to-day more persons than ever before visit the theatre, that more money is spent upon it, that it is more luxuriously housed, and has at its service every modern discovery and mechanical invention, we find its better influence rapidly growing weaker. It has practically lost its force as an educator, and, simply as a dispenser of amusement, its tendency is away from what is rational and wholesome toward what is flippant, trivial, and at times even debasing. No more than a generation ago the theatrical

roster was headed by such names as Forrest, Booth, Salvini, Barrett, the elder Sothern, Jefferson, Cushman, Modjeska, Lotta, Florence, and many others of equal or almost equal rank. The literature of the stage was measured by the classic and standard dramas, and its contemporary products were at least sound if not brilliant. Coarseness and vulgarity were confined to "variety shows" and were not thrust upon the whole theatre-going public in the best houses of the country.

The Cohans, Helds, and similar gentry whose names loom big on the bill-boards and in the newspapers of to-day are really more important and more valuable theatrical commodities than their professional brothers and sisters who seek to follow the old paths and uphold former standards. Stage literature undoubtedly holds the mirror more closely up to nature but it is largely the nature of petty things, not great thoughts and inspirations— the nature of the problem play, the nature of the dissecting-room which probes and cuts and brings diseased conditions to the view.

Of the art of acting in its finer and nobler aspects we have so few exponents that it looks as though the next generation of theatre-goers would have absolutely no standards and no traditions on which to base their judgments. Even in the limited requirements of modern drama, the small ability to appear at ease in the rôles of well-bred men and women, our own expositors of real life are so inefficient that for this minor purpose we have to recruit the ranks from the older civilizations. To make this comparison and confirm the statement that our stage is in a condition of decline is to invite the charge of admiring and talking about "the palmy days," a charge which in some minds seems to carry with it a sort of humorous reproach — a reproach that can be borne with fortitude by those who have the good fortune to merit it. The comparison is necessary, though, in any discussion of the future of the theatre, and the inevitable conclusions from it rather contradict the optimism which sees in present conditions nothing that needs correction.

THE CLOSING SEASON IN NEW YORK

The New York season just closing is fairly illustrative of the pass to which we have come. It shows strongly the trend of the public mind to regard the theatre simply as an amusement and nothing else. It is safe to say that more than half of the total expenditure on theatres has gone into vaudeville houses. These have made such an advance on the old "variety show" and have become so thoroughly the standard amusement of a great middle class that they vie more than successfully with the regular theatres in drawing power. It has become a canon of the vaudeville business that the various acts which compose their bills shall be free from offense. The worst charge to be brought against the vastly increased patronage of vaudeville is that it brings no profit of any kind to its patron save that of the merest amusement. It is a destroyer of the power of concentration and continuous thought. It is an absolutely non-productive factor in our national life and is to that extent deleterious. Next in point of patronage this season have come the semi-musical plays which depend to some extent for their success upon amplified vaudeville features and more sensual attractions. In uselessness they rank with vaudeville, and in their moral influence they are worse.

Touching on this class is "The Merry Widow," an entertainment which has drawn more money — the grand opera houses excepted — than any other attraction of the season. The vogue of this particular comic opera has been almost a world-craze and for it there seems to be no rational explanation outside of the fact that its composer is a master of that peculiar Austro-Hungarian combination of melody and harmony which seems capable of entering the veins and setting the blood on fire.

THE SMALL PROPORTION OF LEGITIMATE DRAMA

This leaves for the legitimate drama only a small part of the disbursement that the public scatters among the theatres. If we admit that the box-office represents the voice of the people and that, on the principle of *vox populi, vox Dei*, it therefore determines what is best on the stage, we must admit at once that the drama is almost at the disappearing point. Under this reasoning, the successful dramas of the season can easily be reckoned on one's fingers.

First among them is Mr. Augustus Thomas's "The Witching Hour," a play which owes its popularity to the exploiting of a psychic theory quite as much as to its skilful mingling of a dramatic plot and some very pretty sentiment. Its successful interpretation is due

principally to the work of actors who gained their training in an earlier generation.

Mr. Belasco has contributed to the season a new theatre and two new plays. It cannot be said that either Mr. DeMille's "The Warrens of Virginia," or "A Grand Army Man," with Mr. Warfield's delightful art in a new rôle, has equaled in intense interest Mr. Belasco's former, more spectacular efforts, though both of these plays have been bright spots in a colorless background.

Ibsen's plays have been more prominent than ever before, principally through Mrs. Fiske's popularity and the dilletante interest in Mme. Nazimova. Ibsen has been prominent but not popular in his own work. There is no denying though that, while his own plays do not of themselves appeal to the American public strongly, they do exert a certain charm of their own and are having a tremendous influence on our own dramatists, who are apparently trying to be real rather than fantastic. The plays of Mr. Walter and Mr. Phillips are excellent examples of the influence that Ibsen is wielding over the younger generation of dramatists.

"The Thief" has drawn patronage through its extremely dramatic story from the French and the artistry of Mr. Bellew, also an actor trained in another generation. Mr. E. H. Sothern's season was notable for his revival of his father's famous "Lord Dundreary," which appealed to only a small portion of the present generation. A late comer in the field, "Paid in Full," by an American author who drew his characters and story from every-day, contemporary life and presented types within the acting power of the material at his command, gained immediate recognition and bids fair to remain long before the public.

Signor Ermete Novelli, the greatest character actor of our time, played a return engagement to practically no patronage except that of his Italian fellow-countrymen.

Mr. David Graham Phillips made his début as a dramatic writer, but although "The Worth of a Woman" was well acted it was too didactic, of too advanced theories, to win immediate approval. His play was a rare example of truth-telling on the stage, and it is sincerely to be hoped that it has not been shelved for good. In addition to these, there have been a few minor successes and more downright failures. But the purely dramatic attempts of the season have been few in pecuniary importance compared with the efforts meant for the light-minded majority of the public.

IN THE HANDS OF THE TRUST

Asking the question "What shall we do with the theatre?" implies that it is in our power to do something with it. This implication is the veriest absurdity in the face of existing conditions. We — by "we" meaning the people of the United States — cannot possibly do anything with the theatre. The theatre as an institution, with all its tremendous educational possibilities, is in the hands of a monopoly. Other trusts are to some extent amenable to the law. The Theatrical Trust has no legal existence and is responsible to no law except the consciences of the conscienceless men who control it. According to the most recent census, there are something like forty thousand persons engaged in the theatrical business on both sides of the curtain. Over the livelihoods, the destinies, almost the life and death of these persons, two men sitting in offices in New York have virtually despotic control. By an accident of fortune they have absolute control not only of the business of the theatre in America but also of dramatic art in America. For that reason it seems rather absurd to ask what "we" shall do with the theatre.

THE NEW THEATRE

Those who stay away from the theatre except on the rare occasions when they have some assurance that what they are about to see will not insult their intelligence and artistic sense are looking forward with hope to the experiment soon to be undertaken in the New Theatre. Persons who have at heart the best interests of the drama in America doubt the success of the new enterprise and doubt its value because financially it will depend upon pleasing a fashionable patronage, always a doubtful factor where the best interests of art are concerned. It is even predicted that after a very little while the fine playhouse now in construction for the New Theatre will fall under the control of the Theatrical Trust and become a standing argument against a truly national theatre sufficiently endowed to insure for all time its artistic and educational mission.

What we shall do with the theatre is a question to be answered by the improvement

of the public taste. Our national good nature and national extravagance make us little resentful of offences and cheats. We are not a wary people and we allow ourselves to be taken in over and over again by the same fraud perpetrated in slightly different guise. In all walks of life we have grown rich so fast that our taste has not grown with our power of expenditure. The present commercial control of the theatre lives on this fact. There still exists in America a saving remnant that knows what is good in dramatic and theatrical art. Its taste may perhaps eventually prevail against the tyranny of the present commercialism and finally answer the question of what we, as a practical people, are going to do with so valuable an institution as the theatre.

A CITY OF A MILLION HENS

HOW POULTRY RAISING CONDUCTED AS A BUSINESS HAS MADE PETALUMA KNOWN OVER THE WORLD—THE UNIVERSAL OPPORTUNITY—IF AT PETALUMA, WHY NOT ANYWHERE?

BY

W. S. HARWOOD

SOME fifty miles north of San Francisco, the town of Petaluma lies on a moor between low mountains. It is largely built up on the poultry industry. In the portion of Sonoma County tributary to the town, over 120,000,000 eggs were produced in 1907, more than 10,000,000 dozen. At least 75 per cent. of the people of the county raise poultry. It is not an occupation relegated to the grandmothers. It is a man's occupation. In Petaluma, men are chicken-raisers as they are elsewhere bankers, merchants, or lawyers. It requires sagacity, tact, experience, and knowledge. It yields returns which, considering the capital required, are large. There are many who fail, but they are those who come ill-prepared, lacking in application, inadequate in knowledge. They would fail anywhere, at anything. But those who are fit, those who make it their chief business, not a side-issue, earn handsome incomes.

I visited an egg-man having a ranch of the larger type. He had nearly 7,000 laying hens. He was hatching yellow chicks in incubators by the thousand, intending after disposing of the young roosters as broilers to raise his stock to a minimum of 10,000. This man, a keen, intelligent, business man, was making a net profit each year of over $6,000. He and two helpers did all the work. The 420 acres of his chicken ranch had also yielded him considerable revenue from a herd of dairy cattle, but these he was gradually reducing in number in order that he might give more attention to chickens. He never netted less than fifty cents per hen in the most untoward season; not infrequently the net revenue on these ranches rises to considerably over a dollar per hen per year, but a dollar, net profit, may be taken as the average.

POULTRY FOR HOME USE

There are three poultry zones in Petaluma. First, the section of the town itself in which the families keep a couple of dozen hens for their own table uses in a wire enclosure in a backyard. For example, a family counting eggs a capital food and consuming a good many of them in a year grew rather tired of the high city prices that prevailed. Wire netting was bought, a yard constructed, a couple of small houses built, one for roosting, and one for laying purposes; two dozen hens were bought. Not all were laying hens, but in a few months the pullet-days of such as were not producing were over and they entered upon their matronly duties. Careful study of the hen as a machine had been made. What was needed to make eggs was developed. Sensible feeding and strict care followed. During the period when eggs were very scarce the little flock of sixteen or eighteen laying hens yielded a net income of over 70 per cent. on the investment, continuing this when the larger output of the warmer weather balanced the fall in price. This will suggest

what the hen will do in a small way when she is given adequate consideration.

SMALL CHICKEN FARMS

The next zone in the Petaluma region begins about a mile and a half from the centre of the town and is perhaps three miles wide. This zone is occupied by the small chicken-ranchers, those who keep from 1,000 to 1,500 or even 1,800 hens. It was in this zone that I found an egg-man who quoted and applied Emerson's dictum: "It is the man who is most energetic who is most successful." He will serve as an example for the second district.

He had come from Michigan some years before, had engaged in other business in California, but finally, being somewhat out of sorts physically and wanting an outdoor occupation, he bought a few hens and set himself up on four or five acres of ground. He had added to his flock until he had 1,500 hens. They were housed in small buildings with roosting-places in each for perhaps seventy-five hens, sleeping above in the floored part, finding the dark places they seek for their egg-laying in the lower portion.

On the lower part of his grounds he had a windmill which pumped up water to his tank on the higher ground; from there the water was piped as needed. A fine little lot of kale was growing at one side, which he fed green to the hens, while he was planning a place for alfalfa; this latter when chopped fine affording one of the most desirable green foods. He did all the work himself. He had a comfortable home and things looked prosperous. His working capital, that invested in the hens, was relatively small, probably not over $1,200. Allowing for all expense he had cleared, net, in 1907 $1.30 each on his 1,500 hens — $2,150. And he had done it easily and comfortably and with plenty of time for his little library and his Emerson. But he had not accomplished it without knowledge, without intelligent care, without a study of market conditions, without what we call business sense. He considered it a real man's work, a dignified bit of labor in which he had found health and profit. Hundreds of such ranches I could see in this second zone as I drove outward to the last section amidst much cackling and crowing.

The foothills were now rising about me as I drove onward. Mile upon mile the rolling country stretched away, disclosing scores of little houses, like children's play-houses or kennels for sedate dogs. All about them, ranging over the sunny slopes, were thousands of snowy chickens looking wondrous neat and spick-and-span against the green grass. Sometimes, in the far distance, where perhaps a thousand or two would be gathered at a common centre, they looked like patches of snow. Practically all these chickens were of the breed known as White Leghorns. Now and then some other breed is seen, but you will scarcely find on these ranches where practical work is done any other hen but the White Leghorn, unless here and there a coop of some fancy stock kept for breeding purposes. The White Leghorn rarely wants to sit; she lays most industriously; she is hardy; she begins to lay when very young.

Many of the houses for the chickens upon these large ranches are built upon old-fashioned sled-runners so that, when it becomes necessary to clean out the houses, they can be drawn away from their location and the manure gathered for fertilizing purposes.

At all points on the ranches, thrift is practised. The men who manage them are wide awake; they keep up with the times; they read the poultry journals of the East and the West; they take active part in public poultrymen's gatherings; they are keen to adopt new methods in feeding and care, but slow to make changes until the new has been tested. In front of an egg-buyer's place, also a supply-house, in Petaluma, I counted forty different kinds of preparations for the hen, nearly all foods of one sort or another, brought out by those who would share some of the profits of the egg-man.

RANCHES FOR 10,000 HENS

From any higher point of ground in this last zone, one may look out upon the rolling landscape where scores of farms or ranches can be seen in the distance, ranging from fifty or sixty acres to 400 acres, or even more. The number of hens on these ranches varies from 3,000 to 10,000. I heard of one man who had successfully handled 15,000. Naturally, responsibility increases with the output, but with a machine in service which, properly cared for, works on the same, year in and year out, until its short life is ended and it is replaced by others already on the way, there would be needed, it seems, only broader

supervision and larger facilities to expand indefinitely.

Some of these larger ranches sell direct to the merchants in San Francisco, others to the Petaluma agents of city firms. For two years a large Chicago meat-packing establishment has contracted to take all the eggs raised, at a minimum figure of twenty cents per dozen, the price ranging above this according to the market. I understand that this contract is not to be renewed in 1908, the producers seeking their own market.

THE INCUBATOR HOUSES

But the life of the hen, her successful laying period, is short; she will do well if she is productive for three and a half years. She must then be killed for market and the pullet takes her place; so on in an endless procession. It is estimated that there are considerably more than 1,000,000 hens in the territory of Sonoma County tributary to Petaluma. Tens of thousands of these hens must give way each year. The incubator fills their places. The sitting hen finds no friendly hand to help her. The whims and petulances of her mood are ruthlessly disregarded. In separate houses on the big ranches are incubator rooms where thousands of chickens are hatched as occasion demands. Near at hand is a brooder house. Here, in a warm room, the little chicks have space to run about and get strong by exercise; here they find food; here at night they gather under a cozy covering, where they are cared for as comfortably as though under the wings of the real mother. Sometimes the rancher buys his young chicks direct from the large hatcheries in town, paying from five to seven and a half cents each.

These town hatching-plants usually consist of long, one-story buildings in which are endless rows of incubators. The temperature is artificially maintained and is kept constant. One of these hatching-plants has a capacity of 100,000. That is to say, it can, and does, when the season's demands are heavy, turn out 100,000 young chickens every three weeks. About 10 per cent. of these die. From 35 to 50 per cent. are roosters. These must be segregated and raised for broilers for the city market. They bring handsome prices.

The chicks are at once shipped away, either to the ranchers near by, or to the cities. They are placed in little compartments, given neither food nor drink, and forwarded by express. They need no care on the journey. They have food enough in their tiny bodies to last them for five days, should the journey be so long. They are shipped from 1,000 to 2,000 miles in this fashion and are guaranteed to reach their destination in prime condition. They go east to Kansas City, south into Old Mexico, north into British Columbia. In Petaluma are a number of incubator manufactories where the hatching-machines are turned out in large quantities. In one that I visited, copper sheathing, rolled very thin, for use in the incubators as lamp-chimneys and for other purposes, is bought by the ton, several tons of copper being used in a year. I had the pleasure of meeting Mr. Lyman C. Byce, at Petaluma, the man who made the first incubator, and who is still in business at the head of a large establishment. He told me that his poultry papers brought him advertisements for fully one hundred different types of incubators, manufactured in various parts of the United States, so that no one need hesitate for want of opportunity for selection.

RAISING DUCKS FOR THE CHINESE

Duck's eggs are also hatched out in wholesale lots in incubators in this region. The Chinese are particularly fond of ducks when they have reached just a certain age, I think it is usually about nine weeks. Then the blood which was in the quills has reached the body and they can be plucked without bleeding. One raiser of ducks in the Petaluma region sold last year 60,000 ducks, averaging more than a dollar each. He sold 16,000 ducks at the nine-weeks' period for $16,000 to Chinamen alone, who came to his depot in San Francisco with their dollars and their huge, swaying shoulder-baskets, and took the ducks away without waiting for delivery. In spite of the vast number of eggs and poultry shipped into San Francisco from the Petaluma district — the poultry shipments amounting to more than $600,000 a year — large quantities are also shipped in from other towns and also from outside the state. While living some time since in Berkeley, near San Francisco, I frequently bought fowl raised in Kansas City and forwarded alive.

This leads to the question: What of the demand — will it warrant the supply?

The annual report of Secretary Wilson, of the Department of Agriculture, for 1907,

recently issued, shows that during the year 1907 the poultry and egg product of the United States amounted to more than $600,000,000 in value. In 1890, the average price paid to the farmer for his eggs was 11.15 cents per dozen. In 1903 this had increased to 12.37 cents; in 1904, 17.2 cents; in 1905, 18.7 cents; in 1906, 17 cents; in 1907, 18.2 cents. During the same period, the increase in the wholesale price of dressed poultry upon the New York market is given as follows: 1899, 10.78 cents per pound; 1903, 12.97 cents; 1904, 12.57 cents; 1905, 13.36 cents; 1906, 13.02 cents; 1907, 14.9 cents.

In spite of the increase in the production of eggs and poultry — in 1907 outstripping even wheat in value — the price has steadily advanced. Higher cost of production has had a tendency to raise prices and added to this is the steadily rising population, making the market larger than ever before. To this must be added also two other causes — combinations of large dealers to maintain prices, and a steadily growing belief in the value of these products, especially the eggs, as an article of diet. But, looked at from any standpoint and making allowance for all conditions which now and then may approach or merge into the artificial and unnatural, the outlook for permanency in the business of producing eggs is certainly a most favorable one. To what extent the present high prices will be maintained as the years come and go, it would be idle to make assertion, but we may at least believe with reasonable ground that the natural and legitimate demand in a country increasing in population is not likely to be less than now. As to prices and profits, they will not, naturally, be subject to such reductions and fluctuations as in businesses in which there is ever a question as to permanency of demand.

While in Petaluma, which may be considered the egg centre, or certainly one of the egg centres, if there be more than one, of the United States, I frequently asked men in different lines of the work this question: "Cannot this business be successfully followed in the East where local conditions are observed, and where a large market is at hand?"

I found two main answers to the question; or, better put, two clauses to one answer. The first pointed out that the California region was favored by nature, but that, at the same time, the conditions in the East were wholly favorable to the raising of poultry and eggs, providing common sense and business sagacity were employed. The second clause pertained to the grandmother idea — the relegating of the care of the chickens on the farms to those who for various reasons could not make it pay. It was pointed out in one conversation that Petaluma produced in 1907 more than $3,000,000 worth of eggs and poultry, but who raised the other $597,000,000? A very large proportion of this enormous amount was raised at a loss. For it is probable that if the actual cost of maintenance, interest, cost of food, and the like were recorded, the hen on the farm in a large number of cases throughout other regions would not be found to pay. But where men of intelligence and adequate knowledge set out, as these Sonoma County men did, to raise eggs and poultry with the same common sense that men enter upon other lines of work, the hen pays and pays liberally.

A CHICKEN TOWN IN IOWA

Under wise care she will continue to pay liberally, in any part of the country. Let me give a concrete illustration. In a rich farming region in northern Iowa, the farmers had paid to their hens the side-issue attention common in many quarters. In a town of 5,000 or 6,000 inhabitants in the region, a schoolboy some years ago began raising chickens and eggs. Being of a thrifty turn, he now and then bought from others and sold on the market. The story goes that a teacher in the public schools one day, after she had on several occasions taken letters from him containing checks for his shipments, which he was in the habit of opening and looking over in school, advised that he should either give up his outside business during his school hours or else leave school.

He decided on the latter. He then entered upon a thorough study of the situation. He believed that even in a country cold in winter and hot in summer, plenty of eggs and poultry could be raised if only the conditions were complied with and good common sense shown in the care of the hens — in other words, he was an unknown disciple of the Petaluma plan. He urged those who were raising hens to raise more. He backed up his requests by paying good prices. Gradually the farmers became interested. They began to see — just as anyone may see who

RANCHES AT PETALUMA, CALIFORNIA
Where 75 per cent. of the people raise poultry

RANCHES ON THE OUTSKIRTS OF THE CITY
The largest of these have from 10,000 to 15,000 hens.

IN THE DISTRICT OF SMALL FARMS
On one of these, covering five acres, a rancher made a profit of $2,150 in one year with 1,500 hens

A WAGON-LOAD OF 5,000 PETALUMA CHICKS

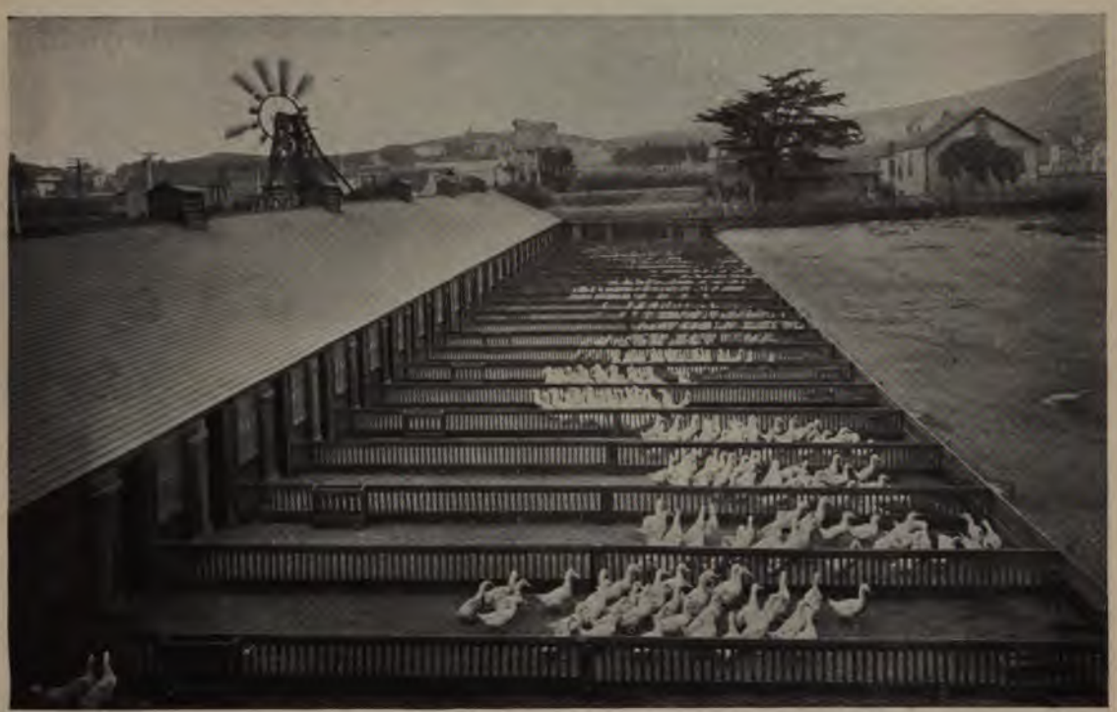
They are shipped north to Canada, south to Mexico, and east to Kansas City

CALIFORNIA INCUBATORS FOR AUSTRALIA

The incubator was invented in Petaluma and its manufacture is one of the industries of the city

A VAN-LOAD OF 36,000 EGGS

Part of the annual output of 120,000,000 eggs, some of which are shipped as far east as Chicago



INCUBATOR-HATCHED DUCKS FOR SAN FRANCISCO'S CHINATOWN
During nine weeks one Petaluma rancher sold to the Chinese 16,000 ducks at $1 apiece

A FLOCK OF WHITE LEGHORNS
Almost all of the 1,000,000 hens in Petaluma are of this breed

EGG-SHELLS FROM A PETALUMA INCUBATOR HOUSE

The largest plant in the city can turn out 100,000 young chickens every three weeks

studies Petaluma or who considers Secretary Wilson's report — that the American hen is worth getting acquainted with. The farmers found the increasing output at the good prices a snug addition to the year's income. They began to figure out how they could raise poultry and eggs at a regular profit on the investment.

So for several years the young man kept on widening his sphere of action, until now thousands of dollars pass through his hands each month, until he has so far developed the industry that he ships now on his own account, not only to the nearby markets of Minneapolis and St. Paul on the north, and Chicago a little farther away, on the east, but is sending his product in carload lots direct to New York City, where from the freshness of his wares he commands top prices.

Others have entered upon the same business in the same town. Last year, as nearly as the figures may be made up, there were shipped from this one little point more than 13,000,000 eggs and nearly 2,400,000 pounds of poultry. These products go to the city markets and do not take into account the amount consumed in the region.

This illustration also suggests what may be done at scores of points in the United States— New York, Boston, Philadelphia, Cincinnati, Detroit, Chicago, St. Louis, New Orleans. Put your finger down on the map at any point and you will find a place where the people, city folk and country residents as well, like and are willing to pay for "strictly fresh" eggs.

The poultry business, instead of being the usual unprofitable adjunct to the farm, can be made an occupation to yield liberal returns under the management of keen, sagacious, business men.

AN EXPLANATION OF MR. BRYAN

WHY TWO DEFEATS AND THE PROGRESSIVE LOSS OF PARTY POWER DOES NOT CAUSE HIS RETIREMENT—"A VENT FOR DISCONTENTS," THE SECRET OF HIS POLITICAL VITALITY

BY

HENRY JONES FORD

AUTHOR OF "THE RISE AND GROWTH OF AMERICAN POLITICS," AND LECTURER AT JOHNS HOPKINS UNIVERSITY

NO MATTER what one's opinion of Mr. Bryan's merits may be, it must be admitted that his career is an astonishing spectacle of brilliant vitality and irrepressible force. He is the only man who ever got a presidential nomination by a single speech. He was the youngest presidential candidate ever nominated by any great national party. If the Democratic party again accepts his candidacy he will be the only man who has ever been nominated for President after having been twice defeated. He is the only man who has ever been able to retain party leadership without any prestige of party success to sustain his influence.

The stages by which Mr. Bryan has arrived at this unique position have been marked by dramatic episodes. The scene in the Democratic national convention of 1896, when he made the speech that got him the presidential nomination, was an event for which no parallel may be found in political history. The nearest approach to it was the scene in the Republican national convention of 1880, when the impression made by General Garfield by his speeches and actions as a member of the convention powerfully contributed to the movement that on the 36th ballot made him the party nominee, although he was not a candidate and was himself a supporter of John Sherman. But General Garfield was then a man of national reputation and his availability was recognized by the general public. It, therefore, occasioned no surprise that the convention should turn to him in seeking a way out of a deadlock. The conditions at the Democratic convention of 1896 were altogether dissimilar. The convention was more intent on the definition of an issue than on the selection of a candidate. The speech by which Mr. Bryan leaped to national eminence was made in the debate on the adoption of the platform.

Mr. Bryan's voice is a wonderful organ of

expression. It is mellow, rather than strong or loud, but it has a thrilling quality that carries its tones distinctly through the reverberating murmurs of a crowded hall or the straggling noises of an open-air mass-meeting. His manner, while glowing with earnestness, is composed, and he speaks without haste, strain, or flurry. His gestures are simple and spontaneous, and he makes the most of what he says by distinct articulation and appropriate emphasis. While every effect is calculated, he presents the appearance of a man possessed by his subject and entirely absorbed by the effort of relieving a full heart and a teeming mind by direct, sincere communication to his fellow-men.

In his famous convention speech of 1896, the impressiveness of his oratory was heightened by contrast with the preceding speakers, both in style and matter. The courtesy of his references to opponents was a fine stroke of tact. For, as a Member of Congress, Mr. Bryan had been one of the Cleveland baiters. He had once likened President Cleveland to a guardian who had squandered the estate of a confiding ward, a trainman who has opened a switch and precipitated a wreck, and he declared that the President had attempted to inoculate the Democratic party with Republican virus with the result that blood-poisoning had set in. It was President Cleveland's policy that was under discussion in the convention, for the minority report from the committee on resolutions proposed an indorsement of "the honesty, economy, courage, and fidelity" of his Administration. Senator Tillman, in opening the debate, denounced President Cleveland as a tool of Wall Street. Mr. Bryan avoided the personal issue, declaring that "it is not a question of persons; it is a question of principles." He devoted his speech to a fervent vindication of the claims and purposes of the free-silver movement, with a progressive force of appeal to the emotions that was tremendously effective at the time and in the place, however the speech may be regarded when surveyed in cold type. It may as well be remarked at once that Mr. Bryan's speeches when read produce a very different effect from what they do when heard. He was nominated on the fifth ballot.

Although his elevation was sudden, it was based upon capabilities that had already been marked by those in a position to observe them. Although not nationally prominent, he was known to his congressional associates as an orator of singular power. He had been one of the leaders in the party revolt against the Cleveland administration and had taken an active and influential part in the movement to commit the party to the cause of free silver. He suggested the phraseology of the financial plank of the platform, and such was the impression made by his ability that Senator Jones of Arkansas, chairman of the platform committee, selected him to take charge of the debate, and thus provided him with the opportunity that he utilized with such success. The speech itself — far from being a spontaneous outburst — was a finished product of art. His entire previous career had been an assiduous preparation for the display he made on that occasion. Ambition for a public career awoke in Mr. Bryan early. He himself dates it from an unsuccessful congressional campaign made by his father in 1872. He was then only twelve years old, but he has steadily adhered to the purpose then formed. On both sides he comes of Colonial stock. The first ancestor whose name and residence are known lived in Culpepper County, Virginia, and owned a large tract of land near Sperryville. His second son, the grandfather of Mr. Bryan, was born there about 1790. Mr. Bryan's father was a lawyer of public prominence. He was a member of the Illinois state senate for eight years and was a circuit-court judge for twelve years. Mr. Bryan's mother came from Kentucky. Her grandfather moved to Illinois in 1818 and settled in the district in which she was born. She died just ten days before the meeting of the national convention at which her son was nominated for President. The house in which her last years were passed was bought for her use out of the first savings from his congressional salary. The details given of the family connections show that they were typical branches of American stocks in whom the conditions of Western pioneer life powerfully tended to develop strength of fibre as a fundamental quality.

The marked feature of his school life is the diligence with which he labored to excel as an orator. By steady practice he early acquired exceptional fluency of utterance and force of appeal to the emotions. His first experience as a public speaker was in striking contrast to all that has happened since. In

the summer of 1880 he was announced as one of the speakers at a farmers' picnic near Salem, but on reaching the place found an audience of only four — the owner of the grove, a man with a wheel of fortune, and two men with a lemonade stand. After waiting more than an hour and failing to obtain an audience, he gave up and went home. But that fall, although still an undergraduate, he made four speeches for the national Democratic ticket, one of them at an important meeting in the county court-house.

After graduation at the Illinois college and a course at a Chicago law school, he began practice at Jacksonville, Ill. He met with the usual trying experiences of young lawyers. The law firm in whose office he rented desk-room employed him to take charge of its collection department, and on this assurance of income, at the age of twenty-four, he married. Mrs. Bryan read law under her husband's instruction and was admitted to practice in the Supreme Court of Nebraska in November, 1888. Her studies were pursued to enable her to assist her husband and not with the intention of entering practice. She has often accompanied him on his political campaigns. A law-school classmate was settled in Lincoln, Neb., and Mr. Bryan was so impressed by its advantages during a casual visit there in 1887 that he formed a partnership with his friend, spending his first winter there away from his family. As a lawyer his practice was sufficient for his modest needs. Both at Jacksonville and at Lincoln he earned enough to support his family and to lay by some money. In each place he lived in a house owned and built by him.

But it was plain from the first that the direction in which his powers were strongest was politics rather than law. While in Jacksonville he was active on the stump in every political campaign. When he settled in Nebraska he promptly turned to politics and his ability as an orator attracted immediate notice. He was twice elected to Congress and was his party's candidate for the United States Senate. He could not give much attention to the law while thus engrossed by politics, and he turned to journalism, becoming chief editorial writer of the Omaha *World-Herald* in 1894. This work, together with lecturing engagements, solved the bread-and-butter problem and enabled him to devote himself to the career of political agitator and radical reformer, on which he had always been bent. After the campaign of 1900 he established his weekly paper, the *Commoner*, and with that and his lecturing business his private fortune has prospered. Thus it is literally true that he is the only man who has ever figured as a prominent public man without any business, profession, or means of support other than the occupation as an agitator.

His equipment is a superb physical and temperamental endowment. He has enormous capacity for work. For thirteen years before he was nominated in 1896 he averaged nearly twelve hours a day in professional and writing work. In his senatorial campaign in Nebraska he spoke four or five hours a day, sometimes riding thirty miles over rough roads between speeches. In the presidential campaign of 1896 he traveled over 18,000 miles, speaking at nearly every stopping place. His career has shown no abatement of his powers, and his varied activities present a marvelous exhibition of human energy. His industry is so incessant as to create the impression that his intellectual output must be immense. But his speeches and lectures are largely reiterations of the same general ideas. His orations, books, and public papers do not equal in bulk those of many other public men and will look small when ranged alongside the works of President Roosevelt.

"A WATERING-POT OF PHRASES"

Mr. Bryan's powers are wholly applied to advocacy. His mind is on the alert for effective figures of speech and telling phrases. His congressional speeches show that some ambitious trope, which has been carefully concocted, is a characteristic feature. Scriptural allusions are a favorite rhetorical device. In a debate with Mr. Bourke Cochran on the income-tax, replying to a remark that he opposed the tax in the interest of the poor, he drew applause by exclaiming: "Oh, sirs, is it not enough to betray the cause of the poor — must it be done with a kiss?" The famous cross-of-gold and crown-of-thorns metaphor, with which he concluded the speech that gained him a presidential nomination, was laid in stock during his congressional service.

The strength of his speeches does not come from the florid ornament to which he is given, but from their simple diction and direct style. Every point he makes is so readily grasped

that unskilled auditors are apt to infer that that must be true which has been made so easy to understand. Jefferson's writings are the source of the abstract principles on which he relies. The wall of his library behind his desk bears a large portrait of Jefferson, with a portrait of Washington a little lower down on one side, and one of Lincoln on the other side.

But, whatever may have been the influences that have formed his principles or fixed his style, his method of treating a subject invariably adheres to Chesterfield's maxim that if you can engage the passions on your side you need not fear what reason may do against you. For this purpose, apparent spontaneity of utterance is indispensable, and Mr. Bryan fully appreciates its importance. He has said that "the crime of reading a speech increases in heinousness with its length." On the few occasions when he has thought proper to read his speeches they fell comparatively flat. Indeed, it is very evident that he is deficient in ability to make a calm appeal to reason. His speeches do not reveal power of analysis or even of clear and comprehensive statement of the case under consideration. They show the workings of an intelligence that is quick but not profound. His method was fixed at the beginning of his public career and it has never varied. It is the oldest of all oratorial device — pretense of identity of that which is proposed with that which all revere, of that which is opposed with that which is traditionally obnoxious. Practical difficulties are ignored or evaded. An appeal to patriotism is his favorite way of getting out of a tight corner. He regards it as a reply to objections to advert to the greatness of the American nation and to the cowardice of doubts as to the extent of its capacity. "Who, of the people who are opposed to the free coinage of silver," he would ask, "would be willing to print on a card, 'I do not think my nation is big enough to take care of itself?'" Even after events had demonstrated that his anticipations of ruin, misery, and distress from the gold standard were mistaken, he still contended that insistence on the free-silver issue was a patriotic duty. "If you ask why I do not drop it," he said in a speech at Baltimore on January 20, 1900, "I will tell you that I am not willing that a handful of English bankers shall control seventy millions of American people." There was much about the national flag in his speeches during the campaign of 1900. He wanted to know whether we should add a new star to the flag — "the blood-star, Mars," or, should we add a yellow star, and "paint Saturn and his rings to suggest a carpet-bag government with its schemes of spoliation." Then he would declaim in favor of keeping the flag as it is, because "its stripes of red tell of the blood that was shed to purchase liberty; its stripes of white proclaim the pure and heaven-born purpose of a government which derives its just powers from the consent of the governed." This is oratory of a kind such as Bismarck described as "a watering-pot of phrases." Such argumentative basis for his contentions as is found in Mr. Bryan's speeches seems to have been picked up from current discussion. One finds no marks of original thought. His study has been concentrated upon the force of expression.

A winning trait of Mr. Bryan's character is his good humor. It appears to be equal to any strain, and this is a great source of his strength. He endures denunciation with smiling composure and can extract amusement from it. Once, on a pleasure trip from New York to Coney Island with Mrs. Bryan, he heard a fellow-passenger on the boat holding forth in terms of unbounded contempt for him and his supporters. Some one gave the loud talker a shock by introducing him, but Mr. Bryan laughed at the incident and both he and Mrs. Bryan exerted themselves to make the man feel that no offense had been taken at his candid expressions of opinion. It is of course the regular thing for a candidate to be "genial," but in Mr. Bryan's case it is remarkably natural and unaffected. It does not seem that anything can happen to make him sulk or wince. He is sanguine and expects success, but he is not shaken by disappointment. When election returns come in, however much against him, he can sleep as usual. He is fond of fun and can enjoy a joke at his own expense. Examples of this characteristic brighten the routine narrative of the campaign of 1896 which he turned out for the book trade, entitled "The First Battle." For instance, he mentions that he was presented with twenty lucky horse-shoes during the campaign, and he remarks: "I leave each reader to determine for himself whether the horse-shoe has lost its charm, whether too many horse-shoes suspend the operation of

the rule, or whether, after all, the result was fortunate for me."

HIS RULE OF HIS PARTY BY DEFYING IT

He has always been refractory to party control and he has not allowed convention deliverances to fetter his independence in deciding what are Democratic principles. He may take them from the Populist party platform or from the utterances of a Republican President. "My theory is," he told the Democrats who welcomed him home from Europe in August, 1906, "that no man can call a convention to decide what he himself shall think." If party leaders do not choose to support him he goes cheerfully on without their support. They may come to him but he does not go to them; he gets beyond and back of them by direct appeal to the Democratic masses. The result of the campaign of 1896 and the business revival that followed the establishment of the gold standard caused party managers to realize that a tactical blunder had been made in taking up the free-silver issue. The feeling spread that the party would have to unburden itself of that issue to regain lost ground. The energy and promptness with which Mr. Bryan declared in favor of steadfast adherence to that issue caused uneasiness, but the party management was slow to realize that the ascendency of Bryan means that old traditions of party behavior have been discarded. Party organization seeks success and looks for candidates and issues that will command success. Mr. Bryan proclaims that he does not desire party success unless it means the triumph of his cause, and he preaches the duty of party martyrdom in preference to renouncing ideas that he identifies with party principles.

His party has been slow to regard this singular attitude in an American party leader as seriously meant, and hence has experienced a series of painful shocks from his conduct. In 1900 the national convention of his party virtually went on its knees to him to induce him to drop the silver issue, without budging him in the least. This was, however, generally imputed to a tenacity of purpose that was an admirable trait, although the particular instance of its display might be regretted. It still seems to have been assumed that when he was allowed a second trial on his own platform he would stand aside and allow the party organization to return to its old practice of regulating action by considerations of expediency. This expectation was confounded by his action in 1904, which marks a decisive period in Mr. Bryan's career. Casting to the winds the dignified reserve that is traditional decorum for an ex-candidate, Mr. Bryan plunged into the fray, fought hard against the movement to reorganize the party, faced his opponents in the national convention, quite undeterred by the fact that conditions then were adverse to his control and that defeat plainly awaited his efforts, and made a most impressive display of courage, energy, and determination. To Mr. Bryan's admirers his behavior then was heroic, and there can be no doubt that his personal influence was greatly augmented by it.

The result of the election was an amazing revelation to the party managers of the power of his influence. It was then for the first time fully realized that he has a following that sticks to him through thick and thin, and is so jealous of his fame that any sign of antagonism to his purpose causes angry reactions, making havoc at the polls. Since the Democratic rout of 1904, the party politicians have groaned under Mr. Bryan's rule, but they have not dared seriously to contest his party supremacy. There have been strong expressions of party opinion that he is an incubus but those who would like to get rid of him do not know how. On the occasion of a visit he made to Washington in February last, there was talk of appealing to him to take himself out of the way. Yet no one ventured to approach Mr. Bryan on the subject.

The efforts of the cartoonists have been chiefly directed to this aspect of Mr. Bryan's ascendency. In the innumerable caricatures of him that have appeared during the past twelve years, he usually figures as a fakir, a charlatan, a wind-bag, a dog-in-the-manger, a Jonah, a circus-rider straddling contrary horses, or other variant of the same general idea. Perhaps the most adequate realization of the true situation was that displayed in a cartoon which appeared in the New York *World* after his Madison Square Garden speech in 1906. It was entitled "The Fisherman and the Genie," in allusion to the familiar Arabian Nights story. Democracy, represented by the fisherman, is cowering before the Bryan genie, escaped from the casket brought up by the party net and unsealed by

party action. But, in general, satire plays upon the singular ascendency he has acquired without penetrating its secret.

HIS SPEECH FOR GOVERNMENT OWNERSHIP

The peculiar relations between Mr. Bryan and his party were vividly illumined by the events connected with his return from Europe in August, 1906. At that time a genuine concentration of party sentiment in his favor had been going on. The spectacle of Republican party dissensions over President Roosevelt's policy indicated the rise of new issues, extending hopeful opportunity to the Democratic party. Elements that had been antagonistic to Mr. Bryan regarded the occasion as a favorable one for eliminating causes of difference, and for converting him into an available candidate appealing to the united support of the party. A strong call went up for his leadership on the basis of the new issues. Mr. Bryan, who was then in Europe, was interviewed by newspaper correspondents as to his response to this call, and he laughingly put off queries with the remark: "This is so sudden!"

PIKE'S PEAK OR BUST!

By the courtesy of the New York World

AN ANTI-BRYAN CARTOON SHOWING THE RESULTS OF THE LAST ELECTION

Few candidates have been deserted by such a large proportion of their party press

Nevertheless, party sentiment turned to him with extraordinary unity and enthusiasm in the hope that he would utilize the occasion for party advantage. That hope was bitterly disappointed by his home-coming speech of August 30,1906. He did cut loose from the dead cause of free silver, but he utterly refused to be converted from a propagandist into an available candidate keeping step with the average movement of party opinion. Instead of taking counsel with the party representatives present from various sections of the country, to make sure that utterance should be circumspect and judicious, he insisted on pursuing an individual course of action. Although his speech dealt with a number of important topics, everything else was cast in the shade by his declaration in favor of government ownership of trunk-line railroads. That is an old Populist party demand; but both in 1900 and in 1904 the Democratic national convention has declared in favor of the policy of public regulation. His intention of shifting from the Democratic to the Populist position was learned with consternation by the Democratic leaders to whom it was disclosed; its effect in throwing the party into confusion was anticipated, but he was determined to have his own way.

THE LOSS OF NEWSPAPER SUPPORT

The outburst of censure that followed made conspicuous the fact that in what remains of the solid South, furnishing the only electoral votes on which Mr. Bryan can surely depend as a presidential candidate, criticism of his characteristics is most acrid. A marked consequence of his ascendency has been the falling away of newspaper support from the Democratic party. His candidacy in 1896 on the free-silver issue was the occasion of sweeping defection among organs of party opinion in the North and they have ever since maintained an attitude of detachment. In the South the press has been constant in its party loyalty, but nowhere have Mr. Bryan's pretensions to statesmanship been so roughly handled. It is in the South that criticism has been most frankly personal on the way in which Mr. Bryan's individual advantage improves by disaster to the party under his leadership. The question has been raised whether the requirements of his lecturing business for fresh incitements to popular interest from time to time do not stand in the way of such exercise of prudence in the selection of political issues as party organization has a right to expect from leadership. In general, it may be said that little affection and much aversion may be discerned in the attitude of the newspapers to Mr. Bryan.

There are rampant organs of Bryan sentiment scattered throughout the country, and yet their support seems to be a reflection from his popularity rather than a sincere adoption of his views of public policy. It is certain that he owes none of his power to newspaper support. He is as defiant of editors as he is of politicians. His influence is manifestly derived from an outpouring of popular force not comprehended by the existing organization either of journalism or of party management, and beyond the power of exponents of those interests to define or measure. It is for this reason that Mr. Bryan himself seems to be regarded at times as something of a mystery, although there is really ample material by which to trace his mental processes and to survey the stages of his development.

WHAT HIS CAREER IS MADE OF

When his career is considered in its entirety it appears as a consistent and harmonious whole. The ideas and opinions animating his speeches and writings are those that he imbibed in his boyhood. Their source is the chronic difficulties of the West from lack of a currency system adjusted to business needs. Imperfection in the medium of exchange always assumes the appearance of shortage in the volume of money, and it is a plausible inference that the proper remedy is for the government itself to assume the function of currency supply. Declarations of policy by both great national parties have fostered this belief, while at the same time the course actually pursued has been to stave off the issue by compromises, temporary settlements, and makeshift arrangements. The inability of the governmental system to act with singleness of purpose wears the appearance of corrupt perversion of the means by which the control of public opinion is exerted. To make elections effective, to end party duplicity, and to enforce the sincere discharge of public responsibilities are the underlying purpose of a persistent agitation the particular aims of which vary with the exigencies of the times. Mr. Bryan's life has been devoted to championship of this cause.

He has seemed to be refractory to party control because he has insisted on treating party as an instrument of public opinion, deriving its worth from that use and not from gains of office. He owes nothing to the arts of party management or to a subsidized agency for his own success, but he obtains his influence from the direct favor of the people. The sum of one hundred dollars, covering his expenses in attending the convention with his wife, was all it cost him to get the presidential nomination in 1896. On reviewing the events of that period it is now apparent that his energy of purpose performed a valuable public service in putting an end to party duplicity and in forcing decisive action with respect to the standard of value. He fought compromises then just as he has fought reorganizers since, and throughout his entire career he has labored to secure complete integrity of party function, by emancipating party organization from the control of special interests and by making party action sincerely expressive of the will of the people. His courage in maintaining this position is the secret of his influence. People feel that his heart is right even if his head be wrong. The only difference made by the passing of the free-silver issue is that it removed the championship lists in which he was accustomed to ride, and converted him into a knight-errant, but he is just the same in motive and disposition as he was before.

Stiff and unyielding as Mr. Bryan has always shown himself to be in his dealings with the official management of his party, he is pliant in his relations with the party rank and file, whose favor he assiduously cultivates. He has repeatedly shown that he can abandon a position when he feels that it is rendered insecure by a decided ground-swell of public sentiment. When in 1906 he accepted the gold standard, he did so on the ground that the new conditions established by the increased production of gold had caused that settlement to be a satisfaction of the demands of the advocates of bimetallism. That was precisely the ground on which the platform committee of the national convention of 1904 proposed to drop the issue, but he resisted such action so energetically that the plank was omitted and no reference was made to the subject in the platform as finally adopted. What he rejected then he accepted two years later in obedience to his own perception that popular interest had been transferred to other issues.

When he found upon trial that his new issue of public ownership of railroads did not take with the masses and was seriously detracting from his influence, he desisted from advocating it, remarking that he "fully agrees with those who believe that it would be unwise to turn attention from regulation, on which the people are ready to act, to public ownership, on which the people are not ready to act." In retiring that issue he was not moved by any desire to promote party harmony on the plane of expediency. He showed this by opening a fresh source of disagreement. He took from the Populist platform a demand for the introduction of the initiative and the referendum, and presented that as an issue which the Democratic party should champion.

These successive shifts of position have been the subject of much comment in his own party, as being evidence that he is to be regarded as a flighty experimentalist, careless how much damage he does to party prospects so long as he can keep himself before the public and add to his lucrative notoriety. It is unquestionably true that such conduct cannot be reconciled with the character of a sincere party leader, according to all traditions of party leadership in this or any other English-speaking country, but it is consonant with the underlying purpose traceable throughout Mr. Bryan's whole career, which is to break down party control of the people and establish popular control of party.

A VENT FOR PUBLIC DISCONTENTS

Mr. Bryan is neither a party leader nor a statesman in the ordinary sense of the words. His strength is on the instinctive side of character and not on the intellectual side. In the sway of his influence we are witnessing one of those outbursts of popular sentiment that are liable to happen in free countries when the common people are penetrated by the conviction that the constitutional system is out of touch with their interests. In such times all that is wanted of a popular leader is that he shall have the wit, the courage, and the energy to serve as a vent for the public discontents. So long as Mr. Bryan is thus serviceable, the American masses will not mind how much rant, cant, and twaddle he talks any more than the English masses minded the profligacy of John Wilkes, who,

too, at the age of thirty-six, was raised by a happy feat of utterance to the position of a popular idol, as a sign of the dissatisfaction of the people with the organization of public authority.

It is usually assumed that the existence of representative institutions should be enough to prevent serious discontent among the people with the way they are governed. The truth is that such institutions may inflame discontent by continually cheating expectation. This was pointed out by Edmund Burke, in his analysis of the public discontents that generated popular idolatry of Wilkes. He said:

"When the people conceive that laws and tribunals, and even popular assemblies, are perverted from the ends of their institution, they find in the names of those degenerated establishments only new motives to discontent."

And he proceeded to declare the true significance of demagogues nourished into importance by such conditions, by remarking that "superficial observers consider such persons the cause of the public uneasiness when they are nothing more than the effect of it."

Essentially the same situation exists in this country to-day. Evidence of the derangement of constitutional function appears in every direction when the operations of government are observed. The theory that the legislature represents the people is derided by facts of common knowledge. Everybody knows that in practice American legislative bodies represent class interests addicted to treasury raids and depredations upon public resources. According to the constitutional scheme, it is the function of representative assemblies to exercise control over the executive department in behalf of the people. In practice, the people have to look to the executive department for exercise of control over the bodies purporting to be representative assemblies, to set bounds to their rapacity, and to force upon them some recognition of the demands of public opinion and some consideration for the general welfare.

Many evil results are experienced, the particular cause of which is so obscure as to afford opportunities for endless party recrimination. But, however the people may fail to comprehend the situation, they have become sensitive to the effects. They are instinctively aware that the public business is managed under a system that permits their interests to be betrayed, despoiled, and abused. Is it at all strange that such a situation should generate wild and furious exertions of popular force?

The prime source of the public discontents is the failure of American representative institutions to secure responsible government. As Speaker Reed once frankly declared, "It is true we have at present irresponsible government, so divided that nobody can tell who is to blame." The people are in revolt against the dishonesty of the system. They are delighted to find a good stick to strike at it. And that is the significance of Mr. Bryan. He is the effect of public uneasiness of a kind which, in the constitutional history of our race, has always been a portent that a certain stage of political development has been reached and that a new advance is about to take place.

THE REDISCOVERY OF OUR GREATEST WEALTH

THE NEW SCIENCE OF SO USING NATURAL RESOURCES AS TO KEEP THEM CONTINUALLY INCREASING IN VALUE—THE HISTORY OF THE SAVANNAH AND SACRAMENTO RIVERS

BY

ARTHUR W. PAGE

WE HAVE boasted for a century and a half about the wonderful natural resources of our country and, except for a few farsighted men, we have not realized the smallest fraction of their possibilities. We have measured our natural resources by their power to stand abuse. Until recently we have never considered their hundredfold greater possibilities under proper use. As illustrations, let us take the biographies of

two rivers, the Savannah in the Southeast and the Sacramento in the West.

THE SAVANNAH RIVER

Up in the Blue Ridge Mountains where Georgia, North Carolina, and South Carolina join, are the headwaters of the Savannah River, which controls the destinies of 8,000 square miles of fertile territory and some 250,000 people. From the point where the Tugaloo and Keowee rivers join to make the main stream, to Tybee Roads at its mouth, the channel is 450 miles, although the distance is only about 250 miles in an air-line. Like all the Appalachian rivers, the Savannah is divided into three zones; the first in the mountains, where the rainfall is heavy and the slopes are steep, giving the stream many falls and rapids; the second through the hill country, or Piedmont, where there are still rapids and occasional falls; and the third along the lower alluvial valleys where the stream is sluggish. The people of these three zones differ greatly in their occupations and in other respects, but they all depend on the river, although many of them consider it their worst enemy.

The mountain folk see the streams carrying away their soil, leaving gullies and rocks. The Piedmont people every year have reason to dread the freshets which wash away their homes, flood their farms, and recede, leaving the good soil covered with débris.

And far down on the sluggish part of the stream, when it overflows, many miles of rich land is turned into swamp. From its source to its mouth, the river dominates the farmers of its valley.

Further, in the Piedmont country are growing up many manufacturing communities. They derive their power from the river. As the floods grow worse every year, the manufacturers are beginning to look upon the river as a menace. It is changing from an obedient servant to a tyrannical master.

The Savannah River used to be a great transportation line. But with the increasing floods it is becoming fickle. Sometimes it is too high for navigation; at other times it is too low; and all the while it is forming bars and shoals, which threaten the business of the river men, and dropping silt at its mouth until, if it were not for the dredging done by the Federal Government, the river would have ruined the great harbor it has made at its mouth.

This malignant spirit of the river toward its people is the result of bad treatment. When the people first settled along its banks it was not so. There were floods and freshets, but they were milder. The river carried silt down to the harbor, but less of it. But the people of the mountains cut away the forests; there was nothing left to retard the rainfall in its rush toward the sea, and no covering to protect the soil from erosion. Now the Savannah's people are reaping the reward of their ignorance; and they are beginning to realize that if the river is to serve them it must be properly treated. They are beginning scientifically to study their great servant. The conception of the river as the most powerful and valuable thing they own is dawning upon them.

IN THE MOUNTAINS

It is difficult to grasp its real value without a clear mental picture of it as it would have been under good treatment. If the Savannah watershed were a part of Egypt, to be developed as homes for an alien and inferior race, what would the British Government do with it? The first zone, the mountainous part of the watershed, would be devoted to one crop — trees, for on those slopes are some of the most valuable hardwood forests in the United States. Every waterfall and rapid would be generating power to run sawmills or to carry the cut lumber to market. And this would be a perpetual industry, for with proper cutting these forests would last forever.

The Tallulah River will serve as an example of what water-power these tributary streams afford. From the mouth of Popcorn Creek, near its headwaters, twenty-five miles to Tiger Creek, the fall is 265 feet. All along this stretch, good, small power-sites are available. In the next four miles, to the head of the rapids above Tallulah Falls, the drop is fifty-five feet. These rapids drop 110 feet and then the stream in a deep gorge makes five falls, a total of about 250 feet, in three-quarters of a mile.

THROUGH THE PIEDMONT PLATEAU

Between the first and second zones, where the river and its tributaries leave the mountains and become larger, there are almost always natural reservoir sites. On the Savannah there are fourteen already surveyed.

Careful forestry would have lessened the floods but not done away with them altogether. But as these diminished floods came down from the hills they would be taken up by the reservoirs. Below them there would be no flood damage. This second zone, the Piedmont country, is a farming district where many staple crops, including cotton, are grown. This would suffer no change except

THE SAVANNAH RIVER VALLEY

Showing the forest zone in the mountains, manufacturing and farming zone through the Piedmont, and the zone of navigation and agriculture from Augusta to the sea.

that there would be regulation to prevent the careless farming that leads to the erosion of the soil; for this in time leads to the choking up of the streams and the river with silt and débris. This Piedmont district is also becoming a manufacturing country. Cotton mills and wood-working factories are being built. The great incentive to this growth is the water-power, and the reservoirs would almost double this. For a plant can utilize only the amount of power which the river furnishes in its low stages. Between the last of the surveyed dams (at Seneca River) and Augusta, the Savannah at its lowest stage will generate 92,890 horse-power. But for the lowest stage of the six months of flood it would generate 139,070 horse-power. The fourteen reservoirs would hold enough of the excess flood-waters in storage, to loosen gradually, to keep the power capacity of the river between these points up to 139,070 horse-power all the year round. As an incidental to preventing the increasing flood destruction, the reservoirs would increase the potential value of the river about $940,000 a year; for $20 a horse-power per year is a fair price for power in the South — certainly not too high; and this does not count the power developed at the reservoir dams themselves.

At the lower boundary of this second, or power zone, stands the city of Augusta, one of the two cities which the Savannah River has already made. It was the head of effective navigation and had become a commercial centre before the railroads came. As the railroads grew more effective and the river, through bad treatment, less so, the river traffic fell off; yet even under these circumstances it amounted to about $6,500,000 in 1904. But, far more important to the people of Augusta than the tonnage which the river boats carried, is the fact that they carry freight at all; for so long as they carry freight the railroad rates have to be made in reference to their competition. It is about 150 miles from Augusta to Savannah. The freight rate on the railroad for cotton is 22 cents per 100 lbs. It is about 150 miles from Augusta to Greenville, S. C. The railroad rate is 28 cents per 100 lbs. The difference is that there is no river running between Augusta and Greenville.

Added to this commercial advantage in shipping toward the sea, the river has furnished power to run the twenty-one cotton mills which make Augusta a manufacturing city. It has the cheapest water-power for any large amount anywhere in the country.

IN THE LOWER VALLEY

Below Augusta is the third zone, that of navigation. The United States Government has spent more than $600,000 in dredging, and building levees in an endeavor to keep a five-foot channel open the year round, and in this they have not been entirely successful.

The reservoirs surveyed would hold more than 5,183 square miles of water a foot deep

from the flood-time until low water, which is enough to raise the depth of the river at Augusta from five to fourteen feet and maintain that depth for 118 days, or about the length of the dry period.

There are two other things which the comprehensive right treatment of the Savannah would do: it would in a large measure check the tendency of the river to form a bar at its mouth, which now necessitates much costly dredging in Savannah harbor. And it would allow the old rice plantations, once the most profitable farms of that country, to be drained and kept free from floods.

There are three great pursuits which are making the people of that 8,000 square miles rich: agriculture, the ultimate prosperity of which depends on the right treatment of the river and the streams that drain into it; manufacturing, which is becoming more and more dependent on water-power; and commerce, which without the Savannah would hardly exist. The farmers grow the cotton, the manufacturers double its value, and the merchants make a profit in selling it; and all of them, and all the others that depend on them, are dependent for their future prosperity on the right treatment of their great river.

The Savannah rises in the rugged country where the Balsam cross-range breaks up the long line of the Blue Ridge. The same forests that protect its watershed protect the headwaters of the French Broad, which flows eastward, the Saluda which flows southwest, and the Tuckasegee which runs south-westward into the Tennessee. These rivers, too, are growing uglier and uglier each year under bad treatment; and they also, if used with judgment, would be of untold service to the people of their valleys. For the Savannah is not an isolated case. It is a type of all the rivers that flow from the Appalachians to the Atlantic. It would serve, too, as a type for those that flow westward from the Appalachians, except that they have a further history and an opportunity for usefulness as a part of a greater river, the Mississippi.

THE SACRAMENTO RIVER

In the old days of the gold craze, the merchantmen from the Atlantic which went around the Horn and could sail in the Golden Gate and go safely up the river to the city of Sacramento. The hills were worked for gold and the valley soon came to hold wheat ranches of hundreds of square miles. What used to be the old Glenn ranch is now a county, and Western counties are half as big as most Eastern states. The Sacramento then carried a large and profitable traffic. But the Western people abused their river and it was even quicker to resent abuse than the Eastern rivers. In the hills, the streams were used for hydraulic mining and thousands of tons of dirt were washed into the river. In the valley, although the rainfall was light, the farmers let the river run by unused, and year after year sowed wheat until the soil, without water, gave out. Some of those famous wheat lands have reverted to sheep pastures and even then will support only one sheep to the acre. There is little profit in wheat-raising anywhere in the valley now. The river craft have almost disappeared, for the river has carried down the tons of débris which the hydraulic mining loosened in the hills and formed obstructing bars and shoals. The United States Government has spent thousands of dollars in improving the river between Sacramento and its mouth. Yet the railroad does the business. The river is principally useful as a theoretical competitor to keep the railroad rates low.

In the old days a man standing in the main street of Marysville, on the Feather River, (one of the tributaries of the Sacramento) could see only the top half of the masts of the schooners lying at the landings. Now, if there were any schooners there, he could see most of their hulls. The river has raised its bed twelve feet since observations have been taken. It is almost as high as the street, so that, to reach the bridge over it, the traveler has to go up an incline. Lower down on the Sacramento the bed is higher than it used to be and 1,000,000 acres of the richest land in California is a semi-worthless tule marsh. Great sums of money have been spent on levees to reclaim small patches of it; for this reclaimed land, which has to be pumped free of water, is worth in places as much as $200 an acre.

The culminating act of retribution by the river was the flood of March, 1907 — the worst in the history of the valley. The crops growing on 300,000 acres were completely inundated and ruined. Many miles of costly levees were destroyed. The railroads lost bridges and culverts and in places parts of their road-beds. The line from Marysville

to Knight's Landing was closed from March 19th to May 13th. The highway and the electric-railway bridges over the Feather River at Oroville were carried away. The highway bridges across the American, the Mokelumne, and the Cosumnes — all tributaries of the Sacramento — were lost. Three costly dredges for mining gold-bearing gravel were destroyed. The greater part of Stockton was flooded for nearly a week. About half of Oroville suffered similarly. And lastly the flood prepared the way for an even greater catastrophe in the future, for it carried away the dam on the Yuba River, fourteen miles above the mouth, known as Barrier No. 1, and let down some 1,000,000 cubic yards of mining débris into the channel below.

But the attitude of the people has changed. Hydraulic mining is now illegal. Much of the watershed is protected by National Forests. And they are going one step further in atonement for their former folly. One morning last summer the Southern Pacific train from the North dropped a car of Government officials at the little town of Red Bluff in the upper part of the valley. They were met by the dignitaries of the town, and, marshalled by the sheriff on horseback, drove out a few miles to Iron Cañon, where the river runs between two high cliffs. It is the place where the river leaves the hills and enters the wider portion of its valley. A dam across this gorge would make a lake ten or twelve miles long; and this is what the Red Bluff people hope to see, for they hope that here will be one of the reservoirs that will bring the Sacramento back into a docile and serviceable mood. Looking north from the bluffs of Iron Cañon, one can see Mt. Shasta on which the river rises and, in the other direction, the broad valley stretching 150 miles to Suisun Bay. Toward Shasta are the forests and the water-power; toward Suisun Bay, agriculture, navigation, and commerce. Iron Cañon is the key of one of the great opportunities which nature has given us on this continent.

THE WORK OF THE SACRAMENTO VALLEY RIVER

A part of the Sacramento Valley is now irrigated, about 400,000 acres out of the total 3,000,000 acres of possible farming land. It is not very much better than other irrigated regions in the West, except that in the Sacramento and its branches there is plenty of water for all the land tributary to it. The opportunity lies in the other 2,600,000 acres. From two main canals leading out of the Iron Cañon reservoir, supplemented by irrigation systems from the lower tributaries, the whole valley could be watered, some 60,000 farms — land enough to support 300,000 people devoted to agriculture, who in turn would support

THE SACRAMENTO VALLEY

One of the richest opportunities in the United States if the river and its tributaries are scientifically handled. The shaded area shows the land flooded in the past or in danger of flood.

twice their number of doctors, merchants, lawyers, real-estate dealers, etc., in the valley towns. If the people will but direct its energy, the river will grow their crops. More than that, it will help gather them, for electricity will soon be furnishing power for the farms which is now developed by steam, by horses, and by men.

From the streams in the Sacramento Valley there is already developed more than 100,000 horse-power. That is hardly a beginning and yet it has pointed the way. Water generates the power for the electric line between Chico and Marysville. It will furnish enough

to run the lines that are now planned to connect the valley towns, and many others which are not planned to connect towns that do not exist. The river will provide transportation for passengers and freight by rail as well as by boat if the people will but harness it for the work.

In the hills in Placer County is the power plant of the Hidden Treasure Gold Mining Company, generating 200 horse-power to run its mines. There are many other isolated cases like this now, but when the river is given a full opportunity to serve its people, there will be not only mine-working in the hills, but manufacturing plants will be located all over the valley. It is not necessary that the plant be near the waterfall. There are transmission lines which carry power 200 miles.

Men are just beginning to study the habits of rivers. They know that a swift current usually picks up silt and gravel and scours out its bed with it; that a sluggish river usually drops what silt it is carrying. But these general laws depend much on the material of the river bed and many other things. The Geological Survey is experimenting to get exact data on these points. With it and a careful examination of the material of any particular river's bed, they will be able to make it attend to its own silt and débris problem. By regulating the flow from the reservoirs, for example, they will make the Sacramento clean a channel for itself which it now costs thousands of dollars to do imperfectly by dredging. And if by wise management the river bed can be lowered as it has been raised by abuse, the tule swamps will be changed into fertile fields and 1,000,000 acres more or less added to the productive area of the state of California.

THE VALLEY OF THE FUTURE

When the opportunity of the Sacramento is finally accepted, one can ride through a swampless valley that knows no floods and in which a harnessed river is growing the people's crops and helping to gather them, manufacturing their goods and distributing them throughout the valley, or taking the people and their goods the first step on the journey to other parts.

And this will not mean that the Sacramento Valley will be further advanced in material civilization than the rest of the country. It will only mean that the nation has awakened to the serviceability of its rivers when they are used with a broad and scientific understanding.

THE RICHES OF THE PHILIPPINE FORESTS

GREAT TRACTS AWAITING AMERICAN CAPITAL AND TRANSPORTATION FACILITIES

BY

ROY CRANDALL

"THE value of the tropical forest-stretches of the Philippines, estimated as a crop, is practically beyond human comprehension," said Major George P. Ahern, the Director of Forestry for the Philippine Islands.

The wooded country is 3,000 square miles larger than the state of New York. Much of the timber for which the Government makes a stumpage charge of $1.20 per 1,000 feet sells in Manila for $35 a thousand, a price fixed by the cost of timber from Oregon and Australia. The difference is the cost of lumbering, transportation, and profit—a good part of it the latter.

One small tract on the slope of Mount Silay, in northern Negros, was recently surveyed for an American company which has secured the exclusive logging privilege of that tract for twenty years. It embraces sixty square miles. Months were spent in ascertaining the worth of the available supply and no trees smaller than twenty inches in diameter were taken into consideration. Thirty per cent. was then deducted for possible defects and the

remaining supply at market rates is worth $44,000,000. Ninety per cent. of the timber in that stand is composed of the six so-called standard growths mostly used in the common commercial branches. Inasmuch as the great majority of trees in that stand are under twenty inches — the smallest diameters the Forester will allow to be cut — they will attain maturity before the present available supply is taken off and, as a result, the tract will be even more valuable after the $44,000,000 worth has been taken from it than it is to-day.

It is hardly probable that all of the forest lands on the islands are as rich as this; though many are richer. If the entire acreage be only half as thickly and as richly forested, the 60,000 square miles could be immediately thinned of about half what they now bear, and the cutting would be worth $21,000,000,000.

That our own forests are becoming insufficient to meet the demands on them adds incalculably to the importance of those of the Philippines, for on their supply this country will be forced to make heavy drains before many years. Major Ahern thinks that the Philippine lauan can be used instead of pine in construction work. It is certain that the Philippine supply will mean added activity in many small wood-working industries. There is much match material in the straight-grained Philippine pine. The Philippine forests will add to the spool-cutting industry, for fine birch is found there; to pencil-making, as red cedar is common; to tight stave-cutting, as there are ample supplies of a heavy yellow oak; to cigar-box making, to railroad cross-tie cutting; but better than all those will be the boon it will confer on the cabinet and furniture makers, especially to those who make fine tables. Tables fifteen feet in diameter can be cut from the swelling buttresses of the narra tree, as the Philippine mahogany is called.

The buttresses from which these are made are a peculiarity of many heavy tropical trees, being especially marked in this species. The enormous height and weight of the trees bring so serious a demand upon the shallow roots that they would topple over in the face of a severe storm if nature did not provide against such a mishap. She takes guard against that possible catastrophe by causing the tree to bulge where it leaves the ground to three times the diameter of the main part of the trunk.

There are thousands of these buttressed trees growing on the islands—some six, seven, and even twelve feet in diameter

Ebony is also found in great quantities and another dense hard wood, as good as lignum vitæ for pulley blocks, grows in great profusion. There is in addition the diospyros, closely akin to ebony and much in use for making inkstands, backing hair brushes and making handles for expensive toilet articles. It sells in America by the pound. In the Philippines millions of logs cut from it are used in corduroying roads. Another wood in which our insular possessions are rich is balacbacan. A market for it has already been created. Seattle has pledged itself to purchase all it can secure at a rate of $90 a thousand feet. It can be bought standing as low as $2 an acre, stumpage fee, can be cut and taken out for $15 a thousand feet, and transported for $10 additional. This means a profit of $63 a thousand feet. There is a comparatively small stand of this timber now surveyed and ready for the loggers. Major Ahern has estimated the measure of the supply at 174,000,000 feet, worth at Seattle a net profit of $11,562,000.

It has long been known that the tanning interests of this country were having difficulty in securing an adequate supply of tan bark. That scarcity can be overcome by supplies from the forests of the Philippines, for in the vast mangrove swamps tanning wood grows in the greatest luxuriance, the wood giving five tons of bark to the acre. The supply is practically inexhaustible and the bark carries a higher percentage of tanning material than either hemlock or oak, which are commonly used.

Just how rich the island area will turn out, nobody may now say with any definite knowledge, for every month of study reveals new and unsuspected wealth. Already 1,100 different species of trees have been seen and classified — or 600 more than there are in the United States. The 1,100 will probably be increased to 1,500 within the next two years as the "timber cruisers" go deeper and deeper into some of the vast tracts which up to date have been merely glanced at.

With all this timber in the Philippines, it seems paradoxical that Manila should import lumber from Oregon. The lack is not of timber but of men, capital, and transportation facilities. There are few railroads in the

islands and those, of course, traverse the more thickly settled and, therefore, the least thickly wooded sections. The Filipinos have never lumbered except in a desultory manner. They have not had the capital. General report is, too, although Major Ahern disagrees with this, that the Filipino is a poor laborer. No experienced American lumbermen have yet come to operate. There are two firms in existence but neither of them is headed by a practical lumberman. As a result of all these things, there is not enough of the Philippine forests cut to supply the home demand, and the lumber markets of Manila as well as those of Hong Kong and Shanghai are supplied from Oregon and Australia.

Major Ahern came to the United States early in February for a brief visit, the third in nine years. He is seemingly content to spend the balance of his days in the islands because he has taken an absorbing interest not only in his work but in the future of the islands and their people. He wants to watch the growth of the industry which he is trying to bring to the attention of the people of the civilized world and which he hopes to see take on such proportions that it will give back to the interests of this country every dollar it has cost. He is singularly qualified for the task, because with the training of an officer of the United States Army he combines the knowledge of a lawyer, wears the degree of a professor, and is backed up both by a practical and a technical knowledge of the science of forestry. Added to those qualifications, he has a powerful frame, enormous physical strength, and a bubbling enthusiasm.

He became a forester through sympathy for trees. Twenty-odd years ago, when a lieutenant in the Twenty-fifth United States Infantry, stationed in the West, he found a tract of 10,000 square miles in the Rocky Mountains which were not on the map. They had never been surveyed or charted and no knowledge of that great stretch was obtainable. The young officer begged the War Department to allow him to chart that land. He was placed on detached duty and given three years to complete the task. There he began to understand for the first time the length, breadth, and wickedness of forest depredations. He saw hundreds of thousands of trees that had been hacked down and partially used for fencing and for poles or for firewood. He walked over miles of territory denuded by axe and fire for no visible cause. He wrote his findings and his opinions to the National Forest Service and asked for all available literature on the subject. In two years he knew so much about forestry that he realized there was much that he didn't know, and he yearned to know it all. He wanted to understand the question from every angle, and because of that desire he believed that he should be a lawyer as well. The late Daniel Lamont was Secretary of War at the time and the wish of Captain Ahern was conveyed to him. Secretary Lamont was interested in an officer with so pronounced a desire for learning, and sent for him.

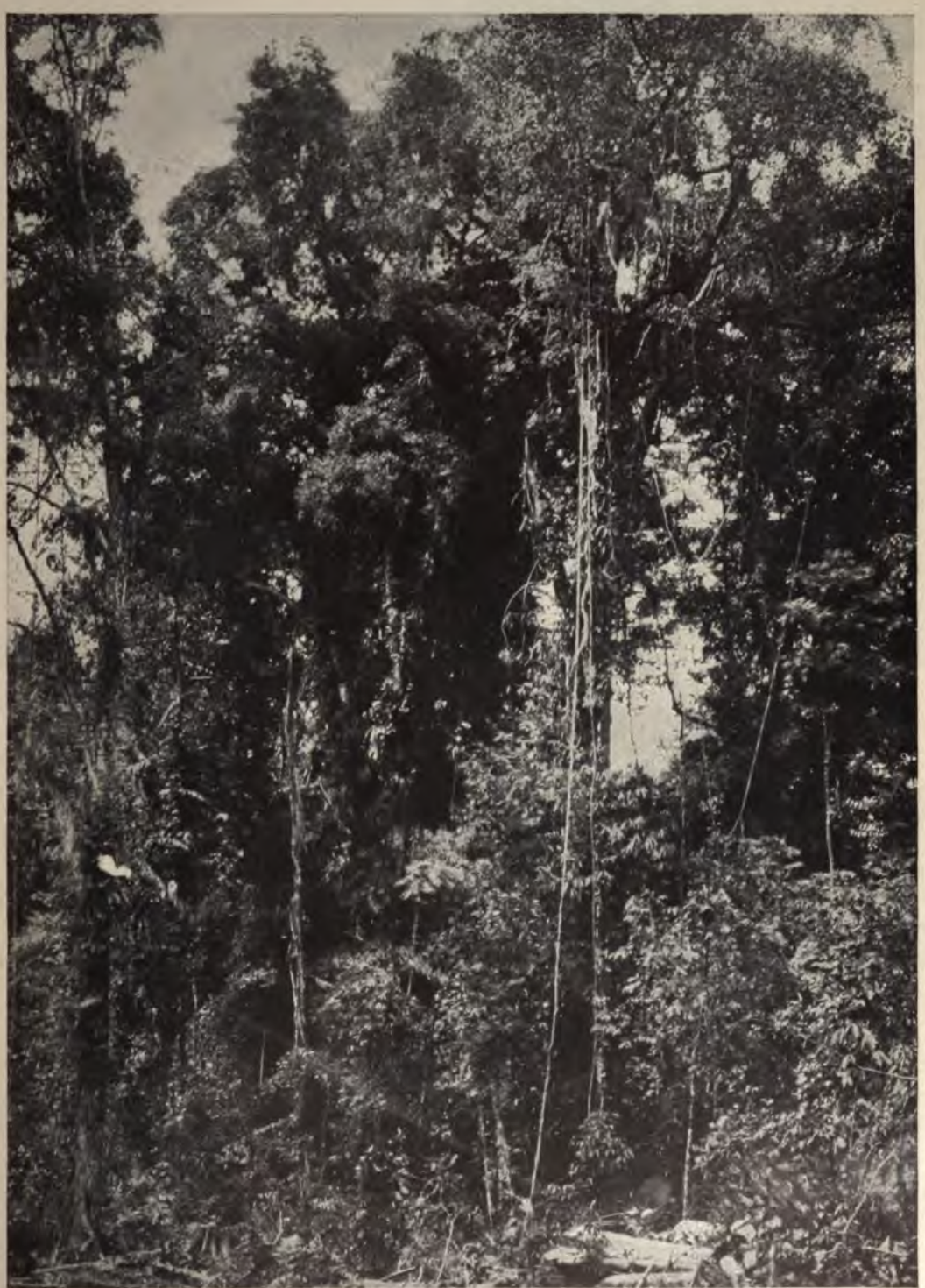
"Captain," he said sharply, "I have been informed that you wish to take a lawyer's degree and to obtain a further scientific grasp on forestry. I am going to open a recruiting station at New Haven, Conn. Yale University is located at New Haven. I shall assign you to take command of that station. I trust you understand me?"

The grateful captain, without mentioning specifically what he understood, thanked the Secretary and withdrew. He entered the senior class at Yale and graduated with honors.

Secretary Lamont was deeply gratified and he informed Captain Ahern that he would send him to the Agricultural College at Boseman, Mont., to teach military science and that he wished him to accept the chair of forestry at that college. For a number of years the captain was stationed there, lecturing to large classes on the subject closest to his heart. When the late war was foreseen, the captain was recalled to active army life. He went to the Philippines as a fighting man. At the close of hostilities he was detached again and ordered to create the Forestry Bureau.

It was an assignment for which he was peculiarly fitted. His years of outdoor life made possible long journeys of exploration and investigation which would have been unbearable hardships for many technical students of forestry. His years as a soldier had taught him how to treat the natives and gain their good will, and the vastness of the task set before him appealed to his pride.

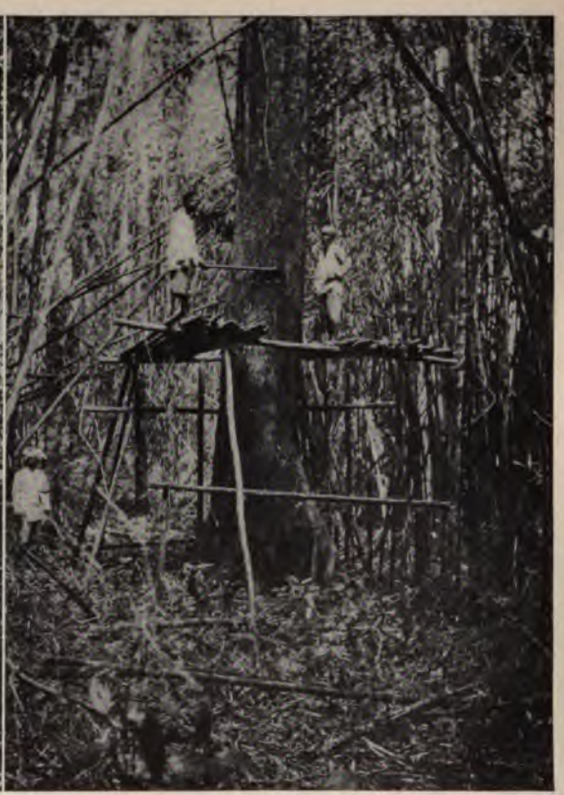
He took hold with a rush. He enforced forestation methods and collected stumpage fees with such despatch that before many



IN THE VIRGIN FORESTS OF MINDANAO

More than 1,000 species of trees have been classified in the Philippine Islands

PRIMITIVE FILIPINO METHODS
Squaring a yacal log at the place of cutting



FELLING A LARGE TREE
With a waste of ten feet of good stumpage

PREPARING TO CUT A GIANT NARRA TREE
Table tops fifteen feet in diameter are made from the buttresses of these trees

MAJOR GEORGE P AHERN
Director of Forestry for the Philippine Islands

FILIPINO LUMBERING
Carabaos hauling logs in the Tayabas Province

PHILIPPINE PINES IN THE BENGUET PROVINCE

SHIPBUILDING WITH NATIVE TIMBER AT DAGUPAN

BUTTRESSED TREE-BASE IN THE PROVINCE OF TARLAC

A BETIS TREE ON THE ISLAND OF LUZON

A CALUMPIT TREE. TARLAC PROVINCE

ON THE EDGE OF A LUZON FOREST

The wooded area of the islands is 3,000 square miles larger than the state of New York

months his work had made such a showing that Secretary Wilson of the Department of Agriculture was forced to submit to much good-natured raillery from both Secretary Root of the State Department, and Secretary Taft of the War Department, because from the Philippine Forest Service there came more money to the national treasury than came from the vastly greater National Forest Service of this country. In five years, the surplus funds above all expenses of the creation and management of the bureau was 1,000,000 pesos, or $500,000, which was sent to Washington and placed to the credit of that bureau.

A NEW PATRIOTISM

THE SOLUTION OF AN ECONOMIC CRISIS BROUGHT ON BY NATIONAL WASTE

BY

GIFFORD PINCHOT

(UNITED STATES FORESTER)

THE people of the United States are on the verge of one of the great quiet decisions which determine national destinies. Crises happen in peace as well as in war, and a peaceful crisis may be as vital and controlling as any that comes with national uprising and the clash of arms. Such a crisis, uneventful and almost unperceived, is upon us now, and unwittingly we are engaged in making the decision that is thus forced upon us. And, so far as it has gone, our decision is wrong. Fortunately, it is not yet final.

The question we are deciding with so little consciousness of what it involves is this: What shall we do with our natural resources? Upon the final answer that we shall make to it hangs the success or failure of this nation in accomplishing its manifest destiny.

Few Americans will deny that it is the manifest destiny of the United States to demonstrate that a democratic republic is the best form of government yet devised, and that the ideals and institutions of the great republic taken together must and do work out in a prosperous, contented, peaceful, and righteous people; and to exercise, through precept and example, an influence for good among the nations of the world. That destiny seems to us brighter and more certain of realization to-day than ever before. It is true that in population, in wealth, in knowledge, in national efficiency generally, we have reached a place far beyond the farthest hopes of the founders of the Republic. Are the causes which have led to our marvelous development likely to be repeated indefinitely in the future, or is there a reasonable possibility, or even a probability, that conditions may arise which will check our growth?

Danger to a nation comes either from without or from within. In the first great crisis of our history, the Revolution, another people attempted from without to halt the march of our destiny by refusing to us liberty. With reasonable prudence and preparedness we need never fear another such attempt. If there be danger, it is not from an external source. In the second great crisis, the Civil War, a part of our own people strove for an end which would have checked the progress of our development. Another such attempt has become forever impossible. If there be danger, it is not from a division of our people.

OUR THIRD NATIONAL CRISIS

In the third great crisis of our history, which has now come upon us unawares, our whole people, unconsciously and for lack of foresight, seem to have united together to deprive the nation of the great natural resources without which it cannot endure. This is the pressing danger now, and it is not the least to which our national life has been exposed. A nation deprived of liberty may win it, a nation divided may reunite, but a nation whose natural resources are destroyed must inevitably pay the penalty of poverty, degradation, and decay.

At first blush this may seem like an unpardonable misconception and over-statement,

and if it is not true it certainly is unpardonable. Let us consider the facts. Some of them are well known, and the salient ones can be put very briefly.

The five indispensably essential materials in our civilization are wood, water, coal, iron, and agricultural products.

We have timber for less than thirty years at the present rate of cutting. The figures indicate that our demands upon the forest have increased twice as fast as our population.

We have anthracite coal for but fifty years, and bituminous coal for one hundred.

Our supplies of iron ore, mineral oil, and natural gas are being rapidly depleted, and many of the great fields are already exhausted. Mineral resources such as these when once gone are gone forever.

We have allowed erosion, that great enemy of agriculture, to impoverish and, over hundreds of square miles, to destroy our farms. The Mississippi alone carries yearly to the sea more than 4,000,000,000 tons of the richest soil within its drainage basin. If this soil is worth a dollar a ton, it is probable that the total loss of fertility from soil-wash to the farmers and forest-owners of the United States is not far from a billion dollars a year. Our streams, in spite of the millions of dollars spent upon them, are less navigable now than they were fifty years ago, and the soil, lost by erosion from the farms and the deforested mountain sides, is the chief reason. The great cattle and sheep ranges of the West, because of over-grazing, are capable, in an average year, of carrying but half the stock they once could support and should still. Their condition affects the price of meat in practically every city of the United States.

These are but a few of the more striking examples. The diversion of great areas of our public lands from the home maker to the landlord and the speculator; the national neglect of great water powers, which might well relieve, being perennially renewed, the drain upon our non-renewable coal; the fact that but half the coal has been taken from the mines which have already been abandoned as worked out and in caving-in have made the rest forever inaccessible; the disuse of the cheaper transportation of our waterways, which involves but little demand upon our non-renewable supplies of iron ore, and the use of the rail instead — these are other items in the huge bill of particulars of national waste.

THE DISREGARD OF THE FUTURE

We have a well-marked national tendency to disregard the future, and it has led us to look upon all our natural resources as inexhaustible. Even now that the actual exhaustion of some of them is forcing itself upon us in higher prices and the greater cost of living, we are still asserting, if not always in words, yet in the far stronger language of action, that nevertheless and in spite of it all, they still are inexhaustible.

It is this national attitude of exclusive attention to the present, this absence of foresight from among the springs of national action, which is directly responsible for the present condition of our natural resources. It was precisely the same attitude which brought Palestine, once rich and populous, to its present desert condition, and which destroyed the fertility and habitability of vast areas in northern Africa and elsewhere in so many of the older regions of the world.

The conservation of our natural resources is a question of primary importance on the economic side. It pays better to conserve our natural resources than to destroy them, and this is especially true when the national interest is considered. But the business reason, weighty and worthy though it be, is not the fundamental reason. In such matters, business is a poor master but a good servant. The law of self-preservation is higher than the law of business, and the duty of preserving the nation is still higher than either.

The American Revolution had its origin in part in economic causes, and it produced economic results of tremendous reach and weight. The Civil War also arose in large part from economic conditions, and it has had the largest economic consequences. But in each case there was a higher and more compelling reason. So with the third great crisis of our history. It has an economic aspect of the largest and most permanent importance, and the motive for action along that line, once it is recognized, should be more than sufficient. But that is not all. In this case, too, there is a higher and more compelling reason. The question of the conservation of natural resources, or national resources, does not stop with being a question of profit.

It is a vital question of profit, but what is still more vital, it is a question of national safety and patriotism also.

We have passed the inevitable stage of pioneer pillage of natural resources. The natural wealth we found upon this continent has made us rich. We have used it, as we had a right to do, but we have not stopped there. We have abused, and wasted, and exhausted it also, so that there is the gravest danger that our prosperity to-day will have been bought at the price of the suffering and poverty of our descendants. We may now fairly ask of ourselves a reasonable care for the future and a natural interest in those who are to come after us. No patriotic citizen expects this nation to run its course and perish in a hundred, or two hundred, or five hundred years; but, on the contrary, we expect it to grow in influence and power and, what is of vastly greater importance, in the happiness and prosperity of our people. But we have as little reason to expect that all this will happen of itself as there would have been for the men who established this nation to expect that a United States would grow of itself without their efforts and sacrifices. It was their duty to found this nation, and they did it. It is our duty to provide for its continuance in well-being and honor. That duty it seems as though we might neglect. Not in wilfulness, not in any lack of patriotic devotion, when once our patriotism is aroused, but in mere thoughtlessness and inability or unwillingness to drop the interests of the moment long enough to realize that what we do now will decide the future of the nation. For, if we do not take action to conserve the natural resources, and that soon, our descendants will find them gone.

Let me use a homely illustration: We have all known fathers and mothers, devoted to their children, whose attention was fixed and limited by the household outine of daily life. Such parents were actively concerned with the common needs and precautions and remedies entailed in bringing up a family, but blind to every threat that was at all unusual. Fathers and mothers such as these often remain serenely unaware while some dangerous malady or injurious habit is fastening itself upon a favorite child. Once the evil is discovered, there is no sacrifice too great to repair the damage which their unwitting neglect may have allowed to become irreparable. So it is, I think, with the people of the United States. Capable of every devotion in a recognized crisis, we have yet carelessly allowed the habit of improvidence and waste of resources to find lodgment. It is our great good fortune that the harm is not yet altogether beyond repair.

The profoundest duty that lies upon any father is to leave his son with a reasonable equipment for the struggle of life and an untarnished name. So the noblest task that confronts us all to-day is to leave this country unspotted in honor, and unexhausted in resources, to our descendants, who will be, not less than we, the children of the founders of the Republic. I conceive this task to partake of the highest spirit of patriotism.

FEMINIZATION IN SCHOOL AND HOME

THE UNDUE INFLUENCE OF WOMEN TEACHERS—THE NEED OF DIFFERENT TRAINING FOR THE SEXES

BY

G. STANLEY HALL

IN THE public schools of all grades in the United States, only 23 per cent. of all the teachers are males. In several states there are less than 10 per cent., and this proportion is steadily decreasing. If we eliminate the high school, where the proportion of male teachers is larger, and also the principals of the grammar schools, mostly men, the proportion of women becomes still larger. In fact, most, and in many cities nearly all, of the grade teaching of children from six to fourteen, to say nothing

of the kindergarten, is done by women. Indeed, a very large proportion of boys and girls who only satisfy the requirements of the law in their attendance never come under the influence of a male instructor. Occasionally, a boy even graduates from the high school and is taught by a man for the first time after he enters college.

This army of women teachers is now the main bulwark in our republic of citizen-voters against all the evils of illiteracy and ignorance. They are paid only a wretched average wage of $43, and not infrequently less than $30, a month. More than half of them have had no professional training whatever and but relatively few have taken full normal courses. More than a quarter of the whole army of teachers leaves the profession every year. No intelligent man or woman justifies this state of things, but practically all deplore it. In the home, the father's as well as the mother's influence is felt, and both are needed for the best upbringing of the child. The most that apologists can say is that the woman's influence may well preponderate in the lowest grades, but it will generally be agreed that boys at least, if not also girls, approaching puberty need the influence of a man also, for their best development, physically, mentally, and morally.

SPARING THE ROD

One of the most obvious effects of this progressive feminization of the pedagogic force is a change in the spirit and method of discipline. A few generations ago, when men very commonly taught children, discipline was severe. There was real authority, enforced upon occasion by physical strength. Floggings were frequent and sometimes excessive; but, where it did not come to that, the male teacher commanded and was obeyed because it was known that he could use force if necessary. Hence, there was some awe, if not fear, and at least a kind of physical respect. Now, under woman's influence, the rod is banished by sentiment and commonly by law, and cannot be resorted to even in emergencies, for the methods of moral suasion, love, or at worst a system of marks and petty penalties, have taken the place of drubbings. Devoted teachers often wear themselves out in coaxing, rewarding, and coquetting with parents, to keep bad boys decent, when a single dose of Dr. Spankster's tonic would do the business with celerity and dispatch, for in the moral world there are situations in which the rod is a magic wand that can still work miracles. Women generally will not flog, and a bad boy knows too well that, if they tried, they could not do it very thoroughly. In the home, the father is sometimes invoked or intervenes in crises, but the teacher is now pedagogically widowed and her large family from this point of view is half-orphaned.

Now, there are boys just entering the hobbledehoy stage of life who need occasional thrashings, as they sometimes need medicine; as Solomon of old intimated, they are spoiled if the rod is spared. Life itself is full of coercion, and the penalties for breaking the laws of nature and of society are severe and inevitable. Pain and its attendant fear have been among the world's sovereign masters throughout the whole evolutionary process. The violation of law, whether natural, human, or divine, has been visited with condign punishment and dread. This latter has contributed much to create the very mind of man, to make it alert and foresightful in order to avoid evil, and quick to remember in order that past offenses be not repeated. The boy is living through that stage of the world where fear ruled and law was enforced by punishment; and he is liable to be a little spoiled under a régime of sugary benignity. It would not be exactly nice to knock a man down, even to prevent him from falling over a precipice, or to break a crooked leg in order to set it straight, though both are sometimes blessings in disguise, for they save from greater ills. What is a little dermal pain with a permanently deformed will or an obstinacy that amounts to volitional cramp and destroys real freedom? Force in this form makes some boys docile, prolongs the plastic, receptive, and apprentice stage of life, teaches reverence for elders; but it is now too often becoming but a vanishing reminder for the rising generation. Indeed, there is a certain type of boy that is actually made neurotic if he is too early burdened with the sole responsibility for his own conduct and is permanently relieved and cured from nerve strain if he is coerced by an energetic authoritative will which he has to really revere.

In England, both in the public and the endowed schools, boys are caned and flattened; in at least one case, not only by men

but by women teachers. These rugged, virile boys, well on in their 'teens, after mature discussion, the master told me, themselves spontaneously voted against the abolition of corporal punishment in their school. There was a sturdy spirit among them that it was a manly, British thing to do, to walk up occasionally and take the rattan at the master's hand and not whimper over the welts. Many a pampered, weakly scion of rich and sometimes noble families in Albion has been waked up morally and mentally by a judicious castigation inflicted by a moral artist in the business who knew just when, how, and how much to do.

May we never again have an era of indiscriminate or excessive flogging, but just now in this country we have more reason to pray against the mawkish, hysterical sentimentality that faints at a well-timed slap or spank.

Our strenuous President some time ago advocated flogging for wife-beaters, and perhaps we ought to agree with him; but this comes too late. A milder flogging earlier would very likely have done the business, for here is just where an ounce of prevention is often worth a ton of cure. Let us, then, at least try to keep men enough in the school so that the venerable and Biblical traditions of the rod shall not quite lapse to innocuous desuetude, and so that it shall not become like a sword so rusted in its scabbard that it cannot be drawn out again when the whole country needs and calls for it.

FEMINIZATION AND ROWDYISM

And it does now. For I think it is impossible not to connect a certain wildness of boys with the feminization of the schools. For a long time I kept clippings on outbreaks of hoodlumism, from which it is plain that these are increasing in this country in numbers and in gravity. A short time ago a gang of rowdy boys in their 'teens in a small city in the Mississippi Valley defied the police and terrorized the town for three days. There were hold-ups, lootings of several sorts, outrages committed on houses and on decent citizens, and several shootings. In another city, for weeks, outrages were committed nearly every night before the perpetrators were discovered and brought to justice. They were then found to have a "club" in an old cellar where all sorts of plunder were collected and orgies were held, the leader of the gang being a boy seventeen years of age. In three schools of my list, boys have conspired to boycott unpopular teachers who insisted on order and, worst of all, an amount of study that these young barbarians thought excessive. In my city, roaming squads of young toughs come from no one knows where in broad daylight, drive off the children and servants, carry off fruit and garden truck in hampers, scattering and rallying again by a code of signals when policemen appear. In the last five years there seems, in the opinion of my neighbors, to have grown up a sentiment that grounds on which the house is locked up for the summer become public property. In most states of our country the age of first commitments by courts is declining and juvenile courts have come none too soon. "Whom do you deal with in the home?" I lately asked several heads of boarding schools for boys, and in every case the reply was that whereas it was once the father, it is now much more often the mother or the aunt who brings the boy to school, makes arrangements, corresponds with the school officers and, if there is any question of discipline, is promptly heard from.

As I am somewhat known to be interested in boys, my mail of late abounds in letters from strangers, nearly always women, asking advice about problematical sons or nephews who, when the pubescent ferment begins and when the mother should turn the boy over to the father, break out into habits of lying, insolence, theft, truancy, or running away from home, associating with vile companions, swearing, drinking a little, and defying authority, until the poor woman in her anxiety suggests the hen in the German fable that had hatched ducklings and saw them rush into the water for their first swim.

In most of these cases nothing very alarming seems to be the matter. The boy has simply reached the stage in his development when he begins to assert the independence and demonstrativeness of his sex, and often, despite real affection for the mother, revolts by a blind instinct from her exclusive control. He needs the father, who is usually too busy to attend to his duty to his son, now ripening into a man. To many such letters I can only reply in substance: "Turn the boy over to the father and tell him you have done your duty by him and now he must take charge. If necessary, go away and rest for a few weeks

and leave father and son alone, and then, if the former has the true paternal metal, there will be perhaps a painful conflict or two and all will be well again." This has sometimes wrought wondrous cures.

THE NECESSARY RAW PERIOD

The most trusted mother is usually shut out from certain parts of a normal boy's life and soul at this age which, by a deep and wholesome impulse, tends to set up for itself, sometimes by the method of deceit and sometimes by that of defiance. It is sometimes said that no mother can be equally helpful for all stages of a boy's life and that those who are best as nurses and guides of childhood are more likely to fail when adolescence dawns, and *vice versa*. Without insisting too much upon this, I am certain that the callow fledgling in the pin-feather stage of the earliest 'teens whom the lady teacher and the fond mother can truly call a perfect gentleman has something the matter with him. His metal is too crude and fresh from the mine to take polish without impairing its temper. Nature is giving just at that stage the raw material and substance of virile manhood, and the nascent period of form comes later. It is the stage of roistering, and youth must have a certain fling — not of course in the form of any vice, but we must expect rawness, unripeness, and restlessness under this stress of conventionalities. The boy needs a longer tether, must have excitement, is awkward in mind, body, and conscience. Aristotle was right in saying that there is no wilder creature than a youth at this age of spiritual drunkenness and that we must not yet expect too much sobriety. Yet some restraint there must be, even if it has to be painful, for the emancipation must not take too riotous forms. The young human cub must not feel that he is a man in the 'teens, but only a candidate for manhood, for precocious maturity always means arrest before the highest plane of completeness is achieved.

No less instinctively does the boy in the early 'teens tend to draw away from girls — whether in the home, the school, or on the street. Each sex is now unfolding tastes, interests, plays, games, and ambitions of its own. How different the lives of the sexes in boarding-schools for either sex only, and how a boy loathes a mate who prefers the companionship of girls to his own. This natural segregation has pervaded every stage of history and every form of society from savagery up, and has an immense momentum of heredity behind it. It is not merely custom and tradition, as feminists are wont to assume, but the authoritative voice of nature herself that dictates this divergence.

Let us look at the matter a little closer. In the neuter period, during the first decade and more of life, boys and girls have little consciousness of sex; very many of their occupations and zests are the same, and the stature and proportions of their bodies differ but little. As civilization advances, divergence in all these respects increases. Again, as everyone knows, the stage of immaturity is prolonged as we go up the scale of animal life; the elephant passes perhaps one-eighth of his entire life in growing, the horse one-tenth, the giraffe one-twelfth, but man now requires about one-third of his total average life to become mature. So, as we proceed from barbaric to civilized man, the stage of adolescence, or the childhood of man's higher nature, has been lengthened, and wedlock comes later. Child-marriage is abandoned for the most part, save in India, where it is thought to be the cause of the ease with which vast multitudes succumb to pestilence and famine, as well as of the inertia that passively resists progress and makes 300,000,000 submit supinely to the rule of 65,000 English soldiers in red and 1,500 officials in black. The true age of nubility now, as measured by the viability and vigor of offspring, does not begin before the end of the 'teens in girls and some years later in young men. The years preceding this are therefore a very critical period during which in modern man a new and higher story is being built upon the basis of the older foundation of humanity. It is critical because, while most children grow in body and soul up to puberty even under adverse conditions, the adolescent increment may far more easily be arrested by strain, ill health, vice, or many other causes; such arrests are less likely than those that occur earlier in life to be made up later. Hence it is here that in very many, if not most, the nisus of heredity which suffices to bring children up to puberty often flags during the 'teens.

THE DEMENTIA OF ARRESTED DEVELOPEMENT

Where this deficiency is marked, we have precocious dementia, the cases of which

some now think constitute one-fourth of the inmates of our asylums for the mentally defective. So sensitive is the organism now to all factors of the environment that very many — and some think all — of us are more or less arrested and live out our lives on a lower level than we might have attained had our surroundings during the second decade of life only been favorable. Now it is that the higher human qualities by which man differs most from animals are attained. Indeed, if man as we know him is ever to be superseded by a superman higher up the scale than we, it will be by still further differentiation, prolonging adolescence, and utilizing to the uttermost all the rich donations which nature gives at this golden and rapid age.

Thus we see why savage men and women differ so much less from each other than do civilized men and women in bodily dimensions, modes of life, interests, etc. The civilized mother has larger hips and should have, for due proportions, an ampler bust; she gives far more of her time and energy to gestation and lactation, while man has more beard, a more virile voice; he should have, and many recent physical tests show that he often does have, more strength and more endurance than the savage. It is because sex-differentiation and dimorphism have developed further and had more time in which to do so because of the prolongation of adolescence.

That these differentiations are so often incomplete is due to the fact of hereditary defect or individual arrest, urban life, abnormal conditions of exercise or labor, sin, etc. Differentiation ought to be pushed to the very uttermost and everything should be welcomed that makes men more manly and women more womanly; while, on the other hand, all that makes for identity is degenerative. Here abnormal living and unhygienic surroundings and regimen work their most deleterious effects, but the intentions of nature are clear, even though they are imperfectly executed.

Man has essayed to scale a greater altitude than the majority have been able to attain. Thus the historic stage of human life is one of aspiration and idealization on the one hand and of failure and disappointment on the other, a contrast which religion emphasizes as holiness versus sin, while heredity, the most ancient and precious form of wealth and worth, has its ups and downs. Men, women, and races of great talent and fecundity spring suddenly and from humble origins, while great nations and families are plowed under, all because, long as is the period of history, it is only transitional from a vastly longer, lower, and possibly level pigmoid to a higher one yet to be securely and generally attained. Historic man, therefore, is engaged in building up a new and higher story to humanity upon vastly older foundations, but it will be complete only when adolescence has done its perfect work and has a motivation as strong and sure as that which constitutes the nisus of growth in childhood. When sex and all its secondary qualities are completely evolved, and men and women are finished and established on the new plane of higher equilibrium, each will have rounded out a sphere of life which fits the nature of each, but is yet more diverse. This is not speculation, but a homely though fragmentary statement of the burden of modern genetic psychology.

Now, benign Mother Nature has also provided many aids in achieving this higher evolution, one of which is by implanting the instinct of pure homo-sexual friendships. The expressions of this we see all the way from the boy-gang up to the classical ideals of friendship, as laid down by Aristotle and Cicero, which have been crowded too much into the background in recent centuries by the extravagant development of the sentiment of romantic love with all its hallucinations in life and literature. Boys find enough feminine traits to like in other boys older and younger, and also in the 'teens they begin to thrill with admiration of noble men. It is one chief trait of this period that, instead of being interested solely in each other, they are now attracted toward the best and most successful careers and characters of adults.

This constitutes one of the opportunities of fathers and, indeed, all men with fatherhood in their soul can utilize this hero-worship of boys and do just as did the Greeks in the days of Socrates. Both these loves of mates and of elders at their best are chaste, stimulating, normal, and needed. Primitive man initiates the boy into life at this stage, explains tribal secrets and symbols and totems, and sets him examples of man's work, spirit, and life in general. The boy is also loyal to his mates, becomes subordinate and serviceable to them,

and thus early helps himself surely and safely on and up and toward the excelsior steppes of adolescence and toward full-grown manhood. If he is outwardly rough toward his companions, he is really at heart tender and finds enough in them on which he can vent his callow love for a season.

SEMI-SEGREGATION OF THE SEXES

While his nature is thus in the gristle, girls are somewhat too delicate for full and hearty comradeship and should be a little afar and ideal. Too constant or intimate association with them — and still more love before its time — diverts the youth from his proper business of developing the fulness of his manhood. There must be acquaintance and occasional but not too frequent association, for there is an intersexual tension most helpful in developing due polarity. But familiarity, as it exists in many co-educational high schools and colleges, tones this down toward indifference, and this means loss or retrogression. Diversion to and by every kind of physical activity and intellectual interest till the maximum growth of stature and strength is attained is the principle that makes for further racial development.

So, too, girls must pass through a probational period more or less apart and by themselves, for they need to serve a no less real, if somewhat less prolonged, novitiate to life. It is hard indeed for a girl in the daily presence and companionship of boys to relax sufficiently for health at stated periods when nature is establishing the lunar rhythm upon the normality of which her future welfare depends and to the interests of which everything else should for a time be secondary. With her own sex she need not be tense, but only natural; and if they know they fully understand and sympathize; but surrounded by boy classmates, she must give no sign, whatever effort self-control may cost.

Again, quite apart from "mashes and crushes," girls are never so charming to each other as in the 'teens. All find leaders and those whom they can lead, and they grow wise in the way for which women have such a genius by pooling their experiences and profiting to the uttermost by those of others, second-hand though they be. For a few years nothing is quite so fascinating as just being together. Girls idealize favorite teachers and lavish affection upon the masculine traits that they find about them in those of their own sex and thus are advancing, though unconsciously, in the fore-school of love. They, too, are wholesomely toned and tempered by occasional meetings with young men and do not become disenchanted with the other sex, as often occurs if they are too incessantly present. Thus girls should round out their apprenticeship to life. Sentiment is enriched and normalized, the mind informed, character matured, physical and psychic health and the altruism needful later for wifehood and motherhood ripen apace till the age of nubility comes — for some sooner, for some later.

There is one important difference between the companionship of the sexes. In all the past of the race, women have never been so gregarious as men. They have been more isolated in the home and their associations more limited to their immediate neighborhood and to their children; while, from savagery up, men tend to mass themselves into larger groups for hunting, war, various rites, politics, and other occupations. Emerging from this immemorial relative seclusion and from the home where acquaintanceship has been limited, when the girl enters college —e. g., with its wide range of daily associations — she finds herself in a situation new to her sex. Hence, I think, she is more liable to be unduly excited by her surroundings. There are so many people to know at once and so much to hear and keep tab on. Thus, having been accustomed to a smaller chosen circle of intimates, she may now become a trifle dazed, nervous, and overwrought by the very multiplicity of new personalities and events that are humming about her. Woman is wont to know her own topographical environment better than man knows his, and to know and care less for things remote, abstract, or that are unknown to others. But all these aggregate into what she now knows is in her own immediate sphere and she feels that it needs to be known for it is harder for her than for boys to ignore things right about her and fix her attention upon a few people or topics and ignore all others.

THE DISILLUSION OF CO-EDUCATION

Another fact has growing weight upon my mind. Girls are more mature than boys at the same age. In many, if not in most, formal studies they excel. Their interests

in all that pertains to the other sex are riper. The boy in their presence in class-room and in social functions is cruder and often feels at a disadvantage. He can assert his instinct of the superiority of his sex on the athletic field and, if it comes to that, in the licensed barbarities tolerated in high-school and college youth. These are perhaps the only resources left him to express the deep old instinct to do something distinctive to "show off" before the female, for intellectual superiority he cannot claim since he is often surpassed in this field by his girl competitors. He feels deeply, though perhaps all unconsciously, that he is not a very admirable being to his girl classmates, is a little conscious, and so becomes gradually a little thwarted and possibly disenchanted, although he could be a hero to younger girls.

The girl also is a trifle disillusioned. She could admire and perhaps adore men, but these unripe boys do not fulfil her ideals of the other sex.

Thus there is on both sides a little abatement of the general tonic effects which each sex should exert upon the other. The daily comradery of the recitation and other intersexual intellectual associations rub off a little of the bloom and charm which each sex normally feels for the other, and there is some sagging of attitude — perhaps even of dress — due to familiarity. Thus, wedlock between classmates of equal age is infrequent, and where it occurs is not quite on the ideal basis which nature suggests. Happy although such unions sometimes are, the man is a trifle subdued and perhaps a little too tame. His propensity to protect and shelter is not needed in such partnerships, while the woman is not sufficiently inspired, but feels responsibilities that the man should relieve her of. She may feel impelled to tax herself to keep pace with her husband's affairs as well as to attend to her maternal duties. She is perhaps somewhat too mature to do her proper share of adaptation because she should be younger and the man older if all the functions of married life are to be performed ideally to the end. Each needs to feel to the uttermost all its own superiority over the other, to make the most of its own resources, to initiate the others into its own life, and yet reserve much that is peculiar to itself. It is these normal, virtuous reservations that co-education interferes with by favoring an element of rivalry and competition which should not enter the wedded state.

GIRLS' SUPERIORITY IN FORMAL STUDIES

Again, girls excel in formal studies where each learns the same things. Again and again, new pedagogic departures have been inaugurated that emphasize the motor and especially the industrial needs of the boy, only to lapse back to formal academic routine. Sloyd was practical, to make things actually needed and used, and it was devised as semi-vocational for boys, but it has become hypermethodic and feminine. Manual training was introduced to meet directly or indirectly the industrial needs of boys, but it strangely tends to become merely cultural. In one such high school, only less than 100 out of between 2,000 and 3,000 after graduation were reported as using any of the training they had acquired there in any remunerative way, partly because girls and feminine methods have given character to the course. Even elementary agricultural education is now somewhat jeopardized by feminization. Latin, perhaps the most formal of high-school subjects, is increasingly a girls' subject — and the same is true to some extent of algebra. These two are the leading secondary topics — both of little intrinsic use or even interest to girls, save in teaching, and both are now taught and learned in the same feeble superficial way to the neglect of the many more useful and interesting things to girls.

Finally (for within these limits only a few points in this vast field can be glanced at), we would take no backward step in the great movement of emancipation and the higher education of women, but insist with the utmost urgency that this movement has only just begun and that it will be calamitous if we rest complacent with what has already been achieved. The victories of the past have been on the basis of identical education, and the far harder task of differentiation is now opening before us. Although there is no sex in science, there is in minds; and the man's way and interests and the woman's way and interests, even in mathematics, are different. In co-educational colleges, and to some extent in the high schools, girls crowd courses that men neglect; and after schooling is over they throng lecture-courses that men do not care for. Religion is always vital for women and they are the chief readers of a large class

of literature, the principal patrons of art, have their own journals, and now their own growing departments even in the daily press. They throng weddings, socials, and teas, as men love their clubs, their secret fraternities, and initiations. The sexes excel each in occupations of their own and the sphere of each (to insist on the till lately almost tabooed word) was never so differentiated as to-day. Education must recognize this and evolve its curricula to fit the diversity of nature and needs.

THE WARDEN OF OUR BIRD-LIFE

THE WORK OF THE AUDUBON SOCIETY, WHICH HAS HAD LAWS PASSED IN THIRTY-SEVEN STATES—ITS WATER-BIRD COLONIES

BY

T. GILBERT PEARSON
(THE SECRETARY OF THE NATIONAL AUDUBON SOCIETY)

IN 1886 the Audubon Society was founded in New York. In 1888 it had 24,800 members. To-day there is a federation of the Audubon societies existing in thirty-one states under the direction of the National Association in New York City.

All the societies are working in harmony to preserve the bird-life of the country by prohibiting the destruction of song-birds and limiting, by short open-seasons and by requiring the sale of hunters' licenses, the wholesale killing of game birds; and their efforts are not confined either to general exhortation or the enactment of legislation — necessary as these things are — for they are active in seeing that the laws, when passed, are observed. One of the planks of the Audubon platform calls for the establishment of a local game commission in every state — non-political when possible — which shall control a warden system for enforcing the bird and game laws. And when a state will not institute a warden system, if it is able the local society does this itself.

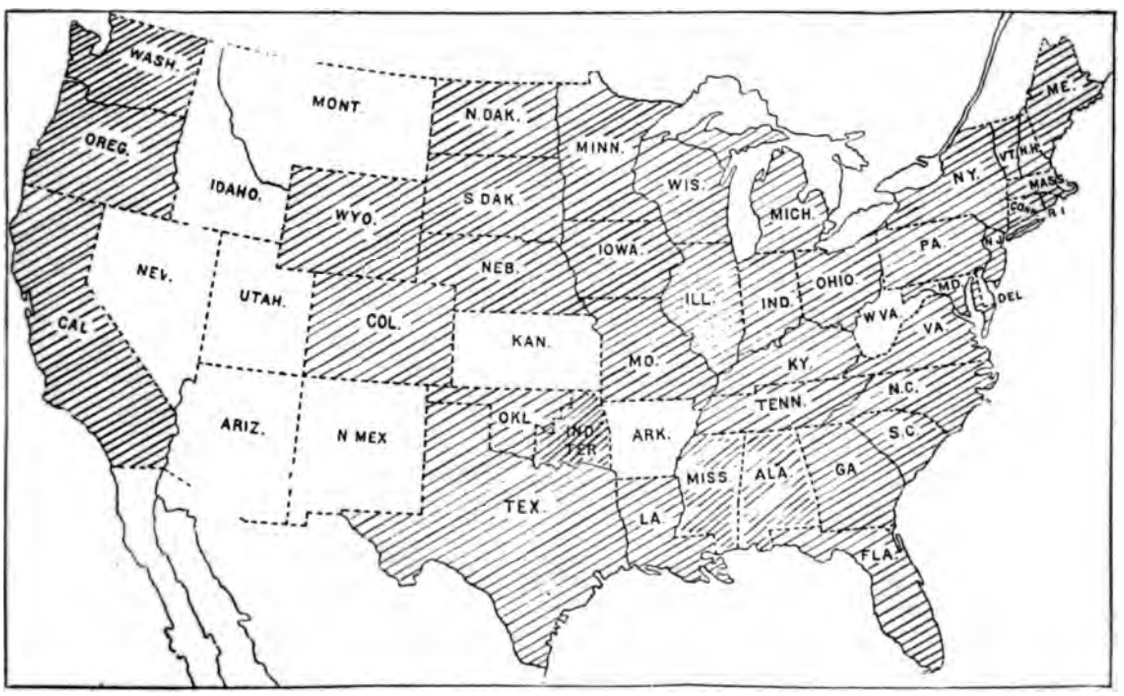
The foundation work, on which all later concrete results are built, is the education and exhortation of the public. The Audubon Society devotes much energy to the work of educating the children in the schools in order to teach the boy that there is something of interest about a bird aside from robbing its nest, and to let the girl know that the bird is of greater beauty while living than when its dead remains are sewed on a hat. Hundreds of junior secretaries are to-day pushing the work of the Audubon Society in the schools. Tens of thousands of children are receiving instruction in-bird study, and the Audubon leaflets to the extent of millions of pages, accompanied with beautiful color-plates, are annually in use. It publishes a magazine, *Bird Lore*, edited by Mr. Frank M. Chapman, of the American Museum of Natural History. Vast quantities of literature are distributed among the agricultural classes and the interest of local hunting clubs is solicited. The lecturers of the society visit farmers' institutes and gatherings of teachers to present the importance of the subject. The press is freely used. Personal interviews are held with the state and county officials — all with the view of arousing such interest as to demand the passage of the necessary laws, which have been carefully prepared by the officers of the society after study of existing conditions. When the legislature meets, one or more representatives are present to appear before the committee having the bill in charge, and not infrequently an officer or agent of the society is invited to address the legislature in a body on the merits of the measure.

The next step is the enactment of legislation. The Audubon Society has long contended for the passage of uniform laws in every state which will afford protection at all seasons to the valuable non-game birds, over 200 species of which are to be found in every state, and which comprise over 80 per cent. of the bird-life. This law, now generally known as the Audubon Law, is to-day in force in thirty-seven states in the Union, and in most of the Canadian provinces. The importance of this statute to the preservation of the song and insect-eating bird population can hardly be

over-estimated. While in some instances there is pronounced opposition on the part of certain interests which desire no restriction on the killing or handling of birds in market, yet in spite of all the educational work the greatest enemy encountered is indifference and ignorance of the true value of game and bird preservation.

GAME COMMISSIONS

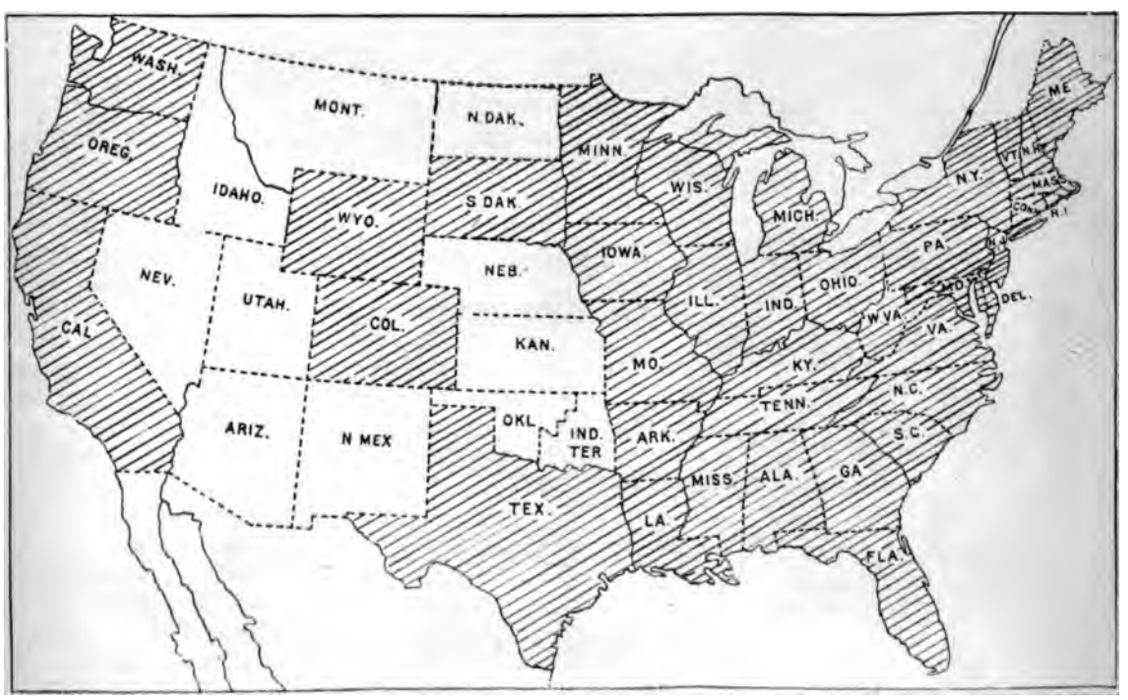
The Audubon Society has realized that the enactment of this law marks the beginning, not the end, of their labors for bird protection, for the laws without adequate means for enforcing them are of but little avail. Without wardens, and wardens adequately paid for their services, there would be no real protection. The Society, therefore, seeks to encourage by every legitimate means the establishment of commissions by the state law, and its work in this direction has been notably successful. A unique step in game protection was taken by the legislature of North Carolina when in March, 1903, it established the Audubon Society with all powers of a department of state for enforcing the game protective measures. The department being non-political, the warden system enjoys many advantages for successful work not usually experienced by a commission dependent entirely upon political favor for its existence. This experiment in game legislation has been successful in every way. For example, during the year 1907 an immense amount of educational work was performed in the schools, at farmers' institutes, and elsewhere, and the Audubon wardens successfully conducted in the courts 245 prosecutions for the violation of the state game laws. One of the game laws most persistently violated is the shipping of quail to the Northern markets. Large profit is to be derived from this traffic, and the attempt to evade the law seems endless. Audubon warden Weatherly has detected and confiscated more than fifty shipments at Greensboro, although his little dog "Jack" receives most of the credit for locating the crates, hatboxes, whiskey jugs, trunks and other receptacles in which the birds are smuggled. The work receives not only the hearty endorsement of those wishing to have song birds protected, but it likewise has the coöperation of many men holding extensive shooting lands in the state. As a result of the protection of the game birds many wealthy citizens



MAP SHOWING (SHADED) STATES HAVING AUDUBON SOCIETIES
In two states the societies act as State Game Commissions

of other states are leasing the shooting rights over large areas of farm lands, paying in return the taxes on the property. One hundred and eighty thousand acres are thus engaged in Guilford County alone, and the non-resident hunters expend annually $50,000 in the county on current expenses, not one dollar of which probably would come to the state but for the opportunity now afforded for quail shooting.

In February, 1907, South Carolina followed the example of North Carolina and invested the Audubon Society with the duties of a bird, game, and fish commission. The abandoned rice fields of the state are now being transferred into vast duck preserves.



MAP SHOWING (SHADED) STATES WHICH HAVE ADOPTED THE AUDUBON LAW
Which protects the non-game birds

There are many species of birds which need special attention. For example, the robin has been universally regarded as a game bird in the Southern States, where he retires to spend the winter, and long strings of the dead birds may be seen in market in many Southern cities. By far the greatest destruction occurs at night. The robins' roost is in some favored growth of cedar trees or small pines. So closely do the birds sit on their perches that a single discharge of a gun will often bring down twenty or thirty victims. The Negro or average country boy, however, does not need a gun. These hunters usually go in pairs, and after one, who carries a torch, has climbed into a tree, his companion disturbs the boughs of the neighboring trees with a pole. The frightened birds dart toward the light, and the torch-bearer, seizing them as they flutter about the flame crushes their heads and drops them to the ground. Sometimes a second man climbs the tree with a brush and strikes down the terrified birds. Frequently a dozen or twenty lights may be counted about a robin roost in a night, and the number of birds slain on such occasions runs into the thousands.

Through the efforts of the Audubon Society several laws for robin protection have been enacted. For example, the legislature of North Carolina not long ago prohibited the killing of robins between sunset and sunrise, and in South Carolina, Alabama, and Texas, recent laws protect them at all times.

Most species of water birds gather in colonies to lay their eggs and rear their young. On many of the small islands along the coast, gulls and terns have thus long been in the custom of collecting annually. When, several

years ago, a great demand arose for the plumage of wild birds with which to decorate women's hats, these colonies of sea-fowl furnished a rich field for the plume-hunter. Vessels were fitted out with provisions and ammunition sufficient for a summer's cruise, and the hunters, sailing from one breeding-ground to another, shot and skinned thousands of adult birds. The young were left to die of starvation. The Atlantic and Gulf coasts of America were in a few years almost depopulated of these sea-birds. On Cobb's Island, Va., 10,000 were killed in a single season, and in eight years the Carolinas contributed to the millinery trade more than 500,000 pairs of wings.

The Audubon Society has not only been the means of making this slaughter illegal, but it now pays for the services of wardens to guard almost every breeding colony on the coast between Maine and the Rio Grande River. In a similar manner nearly the entire extent of the Pacific Coast is protected. As a result, these beautiful scavengers of the seas are rapidly assuming their former numbers, as may be noticed by the increased number of gulls to be seen about our harbors each season. Birds, when they are protected, soon lose much of their shyness. In many of the protected colonies the wardens can now easily approach within fifteen or twenty feet of the brooding birds without causing them sufficient alarm to leave their nests.

BIRD RESERVATIONS

To throw a still stronger safeguard about these ancestral colonies, President Roosevelt has by executive order declared many of the islands to be bird refuges, thus making them perpetual breeding-places for these winged tenants of the ocean. Of recent years, every summer at the season when the birds are engaged in their household duties, the agents of the Audubon Society conduct exploring expeditions and make surveys of such localities as it was deemed wise to give protection. There are four important reservations in Florida, four in Louisiana, one in North Dakota, two in Michigan, one in Oregon, three on the Washington coast, and one in Nebraska. The Audubon Society has also acquired, by purchase or by lease, much territory inhabited by breeding birds on the coasts of Maine, Louisiana, North and South Carolina.

This rigid means of protection came not a day too soon in order to save the birds. Certain species, notably the gull-billed tern and the least tern, which twenty years ago swarmed by myriads, are to-day probably represented by less than 1,000 individuals.

SOME OF THE CONCRETE RESULTS

In these causes the Audubon Societies have made their influence felt in every state in the Union. Wherever the interests of wild birds and game are threatened its agents appear to plead the cause of the wild creatures. It has broken up the great traffic in the heartless trapping and selling of adult birds. It has assisted in bringing to light some illegal practices of enormous extent by large cold storage plants in New York, and has brought the offenders to justice. It has saved the birds of the Sandwich Islands from the Japanese feather hunters. Its officers are actively engaged in gathering information regarding the killing of elk for their teeth to be used for ornamental purposes, and the society has provided funds to assist in the prosecution of some of the worst slaughterers of big game whose camp fires ever gleamed along the Rockies. It has saved by Parliamentary enactment the flamingo of the Bahama Islands from the dinner-pots of the Lucayan bird eaters, and has stopped the shipping of ducks by the carload from Texas. It has helped to secure Federal legislation for the preservation of the bison, for the protection of the birds of the District of Columbia, and the establishment of better game laws in Alaska. It has probably saved from extinction the white herons, America's most magnificent wading birds, and one of its agents, Guy Bradley, gave his life defending the birds of the Florida keys.

The income of the society is derived largely from a five-dollar membership fee and contributions made by persons interested in furthering the objects of the association. The interest from the bequest of nearly one-third of a million dollars, made to the endowment fund by the late Albert Wilcox, has greatly aided the work. Much credit for the success of the Audubon movement is due to the president, Mr. William Dutcher, who has devoted the best years of his life to the cause so near to his heart without remuneration of any kind save what he derives from the consciousness of great results achieved.

OUR UNKNOWN SCENIC WONDERS

THE CROWN OF THE CONTINENT

A NEW NATIONAL PARK IN MONTANA WHICH SENDS ITS WATERS INTO THREE OCEANS—ITS THIRTEEN GLACIERS AND MANY PEAKS

BY

ALFRED W. GREELEY

"THE Crown of the Continent" with its glistening glaciers and towering, ragged mountain peaks will soon be a national park. Glacier National Park, as Senator Thomas H. Carter, the patron of the measure, proposes to name the new public pleasure-ground, is in northern Montana. It embraces the most picturesque portion of the Lewis and Clark National Forest, where the main divide of the Rocky Mountains twists and turns, crumpling the great ranges upon themselves before they thrust their rugged, forbidding masses of cliff and peak over the international boundary line into Canada. Hundreds of lakes, some of them many square miles in extent, fed by glacier streams that in some instances plunge in a single fall over cliffs a thousand feet high, hide in the shadow of great mountains, which almost defy exploration and ascent save by the mountain goat.

WHERE THE GREAT RIVERS START

It is not by a stretch of the imagination that this fascinating wilderness of glacier, peak, and lake is known as the "Crown of the Continent." The melting rills from its enormous ice-masses help to feed all three of the oceans that wash the shores of North America. It is possible to launch three chips from points within gunshot of each other in the park, which with propitious currents will eventually float, one into the Gulf of Mexico, the second into the Pacific, and the third into Hudson Bay. Here, amid the almost unexplored fastnesses of northern Montana, is where the waters of the continent divide — north by the Little Belly River and the Saskatchewan to the Arctic Ocean; eastward, the Marias and Milk rivers take the waters of innumerable lakes into the Missouri and Mississippi; and westward glacier floods are poured into the Flathead which through Clark's Fork finds its way to the Columbia and the Pacific. Glacier Park is the continent's great watershed.

Owing to the forbidding inaccessibility of the region, the mountains of the Glacier Park district remained for years practically unexplored, their rare scenic beauty and marvelous glaciers unknown to the world except through the tales of adventurous hunters of mountain goats and grizzlies. During the past few years exploration has thrown a flood of light upon this dark spot on the map of the United States, but while the topographical features have been mapped by the United States Geological Survey, there yet remain large areas to tempt the mettle of explorers, while a score or more of unconquered mountain peaks from 8,000 to 10,000 feet in height still challenge the mountain climber.

The park will include within its boundaries most of the noteworthy glaciers in the United States. Thirteen enormous ice fields have received names from explorers, but there remain hundreds of smaller glaciers hidden in cañons or on the steep flanks of the mountains that are awaiting climbers and names.

THE SPERRY GLACIER

One of the largest and most interesting, possibly because it is one of the best known of the icepacks, is the Sperry Glacier, named after one of its explorers, Lyman B. Sperry. It is situated in a great bend of the mountains in the southwestern corner of the park, several miles northwest of Lake McDonald, a wonderful sheet of crystal water, sixteen miles long by five in width and in certain places almost 2,000 feet deep. The Sperry Glacier has a serrated frontage of more than two

miles, stretching back five miles to its highest source on the top of Glacier Mountain. The glacier gradually spreads out as it descends the mountain side toward the northwest, terminating near the undulating border of a great mountain amphitheatre of about three miles in area. A mile from the glacier's creeping front, the amphitheatre ends in an abrupt precipice of 3,000 feet, over which in past ages the glacier once dropped its great icebergs into the pocket below, now known as Avalanche Basin. From the white lips of the great glacier countless little streams now pour forth, uniting eventually in several torrents that plunge in cascades over the precipice into Avalanche Basin and then to the lake, 2,400 feet below. Deep crevasses have riven the glacier, giving the tonic of peril to the climber.

Gunsight Mountain, to the southeast of Sperry Glacier, raises its rugged peak to an altitude of 9,250 feet. It overshadows the picturesque Gunsight Pass with Jackson Mountain, 10,023 feet in height, on the other side, and overlooking the vast ice field of the Harrison and Blackfoot glaciers, as yet practically unexplored, but known to be the most extensive glaciers in the park. Red Eagle Glacier lies to the east, south of Almost-a-Dog Mountain, in a great bend of the Continental Divide, and ends at practically the same point as the Blackfoot and Harrison glaciers, with which it forms an immense ice-cap, lapping down over both sides of the main range. Farther to the south are Stimson Mountain, 10,155 feet, Pinchot Mountain, 9,332 feet, and a maze of unnamed peaks, lakes, creeks, and unexplored glaciers.

ON THE CONTINENTAL DIVIDE

Following the Continental Divide to the north from Sperry Glacier, the next great ice-pack is the Grinnell Glacier on the east of the Garden Wall, Gould Mountain, and Grinnell Mountain, surrounded by a chain of lakes emptying the beautiful Swift Current Creek. To the southeast lies the large Saxton Glacier, on the precipitous north slope of Going-to-the-Sun Mountain.

North of Swift Current Pass, Iceberg Lake lies in a great twist of the range, the Wilber Mountain Glacier rising abruptly 1,000 feet or more from its shores. Here when the sun grows warm enormous icebergs break away from the parent pack and crash into the water of the lake. The wind drives the bergs hither and thither over the surface of the water, the grinding of berg against berg echoing down the cañons. The Indians avoid this vicinity, saying the weird noises are the wails of lost souls condemned for their crimes in life.

To the east is the deserted mining town of Altyn, once throbbing with the big hopes of optimistic prospectors, but now the lonesome cabins, clustered upon the Swift Current, are tenanted only by owls and wolves.

Farther to the north, along the divide, are many large, unnamed lakes, overtopped by Merritt, Cleveland, Goathaunt, Kootenai, Shepard, and Campbell mountains, and by Citadel peaks. Chaney Glacier is the largest of twenty or more glaciers in the northern part of the park, on the east of the Divide. On the west, the larger glaciers are Vulture, Rainbow, Boulder, Agassiz, and Kintla, the latter lying to the south of Kintla Peak, which reaches an altitude of 10,100 feet. The culminating peak of the park is Mount Cleveland, which towers to an altitude of 10,438 feet, east of the Little Kootenai River.

A BREEDING-GROUND FOR BIG GAME

The creation of Glacier Park means the establishment of a great breeding-ground for big game, which under present conditions and in spite of state and Federal protection, is being rapidly slaughtered. The park area is alive with game now and, with reasonable protection and regulation, together with a suitable winter range, would keep northern Montana a hunter's paradise, making this park, even more than the Yellowstone is now, the basis from which the game would drift into adjoining districts. It is among these mountains that the snowy-coated mountain goat finds a safe retreat on dizzy heights, picking its way with marvelous agility across the faces of precipitous cliffs. Here it is that the "bighorn," or mountain sheep has its haunts. A few elk are found in the lower levels, and there are scores of deer in the bottoms. In the cañon jungles moose are relatively plentiful. Black bear are not abundant, but the silver-tip grizzly finds the environment ideal to its needs and is frequently encountered, particularly in the fall when the huckleberries are ripe. Birds are also plentiful. On these mountains the bald eagles

nest. In the higher slopes the ptarmigan, with its changing coat of from brown to white, furnishes sport for the hunter with sturdy legs and hardy lungs, and in the lower levels several varieties of grouse are found in abundance. There are also many trout-streams which have never been fished.

The park is bounded on the north by the Canadian line, on the east by the western boundary of the Blackfeet Indian Reservation; on the South by the Great Northern Railway right of way, and on the west irregularly by the valley of the Flathead River. It is proposed that the Government shall establish an elaborate system of roads and trails throughout the park, bringing all of its marvelous scenic beauties into easy accessibility and these wonders of their own country within the knowledge of the American people.

A PLAYGROUND ON A CRATER'S EDGE

CRATER LAKE, OREGON, IN THE COUNTRY WHICH THE VOLCANOES MADE—A LITTLE-KNOWN NATIONAL PARK

BY

OWEN WILSON

LAST summer two men hauled a gasoline launch fifty miles from the town of Klamath Falls, Ore., to the foot of Mt. Mazama, dragged it up through the snow to what is now the top of the mountain, and lowered it by a rope 1,000 feet down a steep snow-slide to the lake below; for the peak of Mt. Mazama is inverted and filled with water. Crater Lake, as it is called, is about six miles long and four wide, and in places 2,000 feet deep. Its great depth of pure fresh water has given it such a brilliant blue tinge as has made Lake Geneva in Switzerland famous the world over. The launch was the first step to prepare Crater Lake as a pleasure-ground for the people of the United States, to whom it belongs, for like the Yellowstone and the Yosemite it is a National Park. When transportation is improved and when it becomes better known, it will be, as they are, among the great sights of the nation.

With Captain Applegate, an old Indian fighter, a friend and I left the house of the Government's agent in the park late one afternoon to see the sun set from the rim of the lake. A broad-faced, good-humored Indian policeman named Drummer David rode after us and with him we left our horses when the incline began to get steep, for it was early summer and the road was not clear of snow. I became separated from the party and was climbing slowly straight up the mountain side while they went at a faster pace zigzag up the trail. The woods were rather open, but thick enough to keep one from seeing very far ahead. After a little while I lost sight of the others and entered a small thicket. The easiest way through was to put my head down, hunch up my shoulders and push through. When the last branch swished by and I looked up, I was within my length of a 1,000-foot precipice and at its bottom was Crater Lake.

A MOUNTAIN RANGE OF LAVA

Mt. Mazama was probably the highest of all the great volcanoes of the Cascade range of mountains and the Cascade range is composed of lava from its innumerable volcanoes. Not long ago, geologically speaking, this part of the United States was a most terrible place. From Mts. Rainier, St. Helens, and Hood on the north, by Mt. Shasta and Mt. Pitt to the Lansen peaks south in California, there was one long line of volcanoes scattering red-hot matter over the country until they had built up a mountain-range higher than the Appalachians and covered all eastern Oregon with lava. And Mt. Mazama was the greatest of them all. From the contour of the remaining part of its base it is estimated that it was 14,000 feet high. Finally it had a tremendous eruption. It threw pumice no one knows how high; some of it landed twenty miles away. Then

SENTINEL PEAK

In the proposed new Glacier National Park, Montana. Waters from this region run north to Hudson Bay, south to the Gulf of Mexico, and west to the Pacific

GRINNELL GLACIER AND MOUNTAIN

A CREVASSE IN SPERRY GLACIER

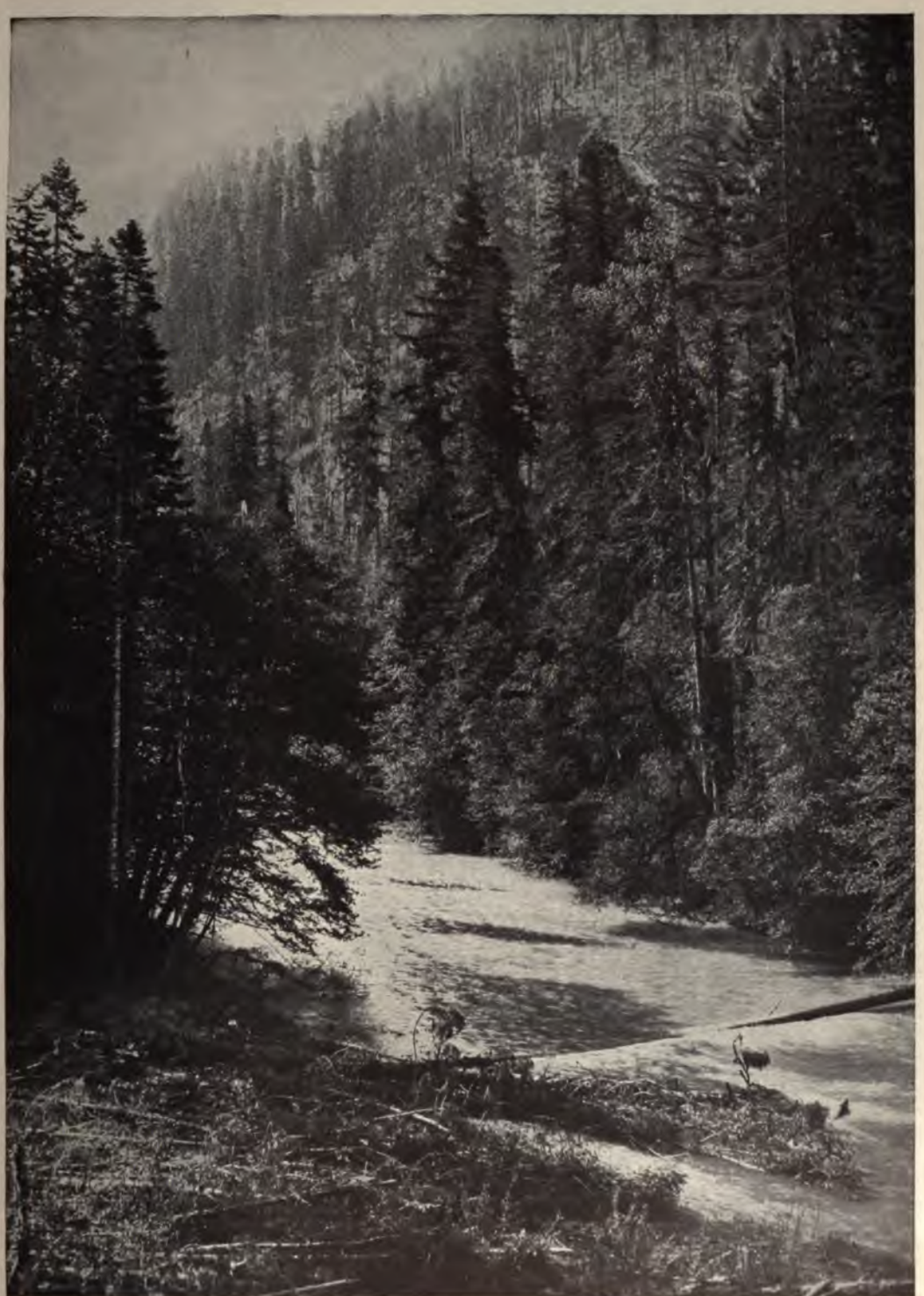
The glacier is five miles long and two miles wide at the bottom

SPERRY GLACIER AND MATTERHORN MOUNTAIN
In the distance the cloud-capped peaks of "The Crown of the Continent"

FOLDED STRATA IN THE HEAVEN PEAK RANGE
From the snow-patch to the summit is 2,000 feet of solid rock

CRATER LAKE, OREGON, WITH BANKS 1,000 FEET HIGH

It is the crater of Mt. Mazama and Wizard Island, a smaller extinct volcano inside it. The lake in places is 2,000 feet deep



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THE ELWHA RIVER, IN THE OLYMPIC MOUNTAINS

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A VALLEY IN THE OLYMPIC MOUNTAINS
This range overlooks Puget Sound and the Pacific Ocean

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MT. OLYMPUS
Its highest peak climbed first in 1907

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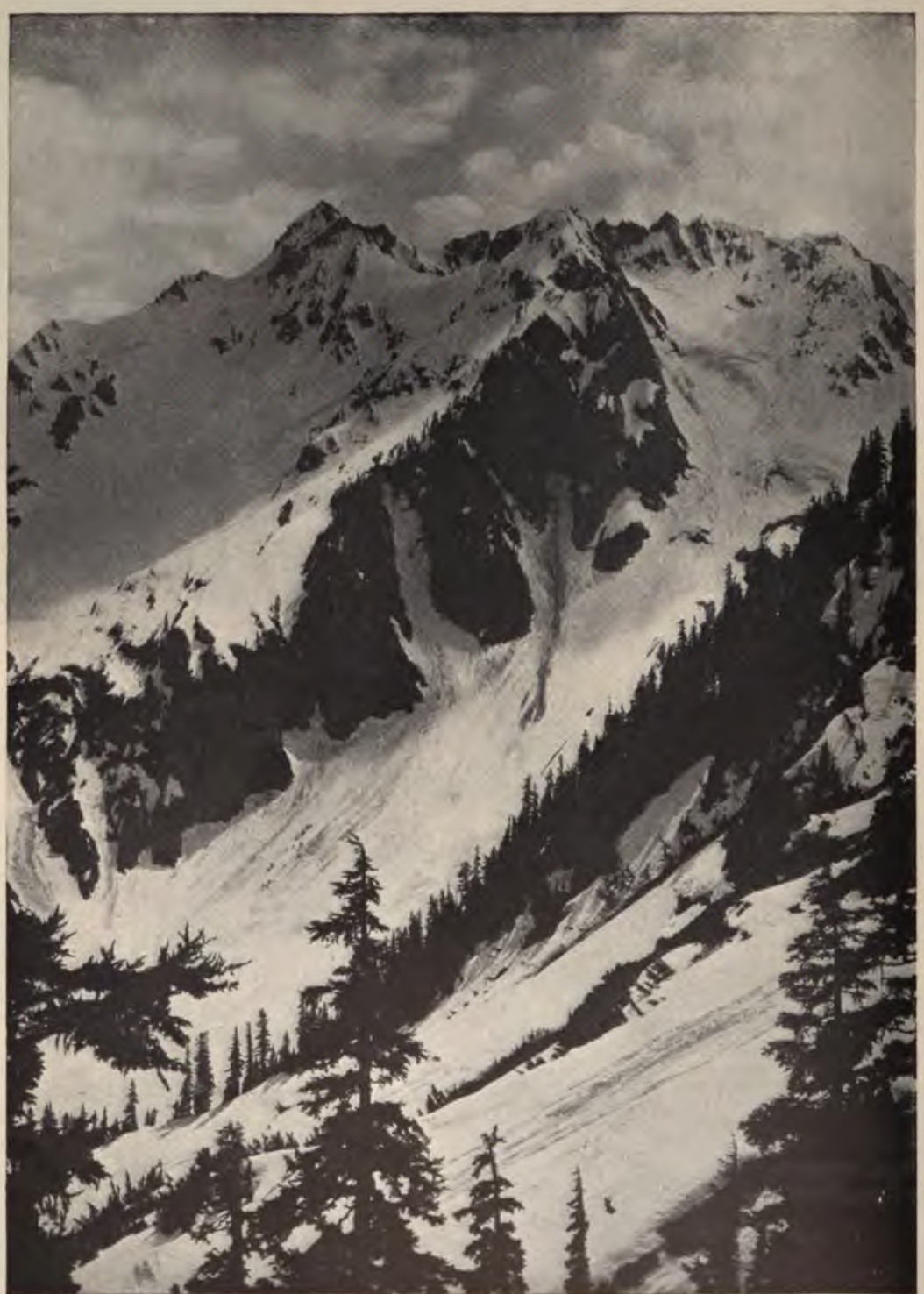
ON THE SUMMIT OF MT. QUEETS
Mt. Meany in the distance

THE EASTERN WALL OF MT. MEANY

SNOW CORNICE ON MT. QUEETS



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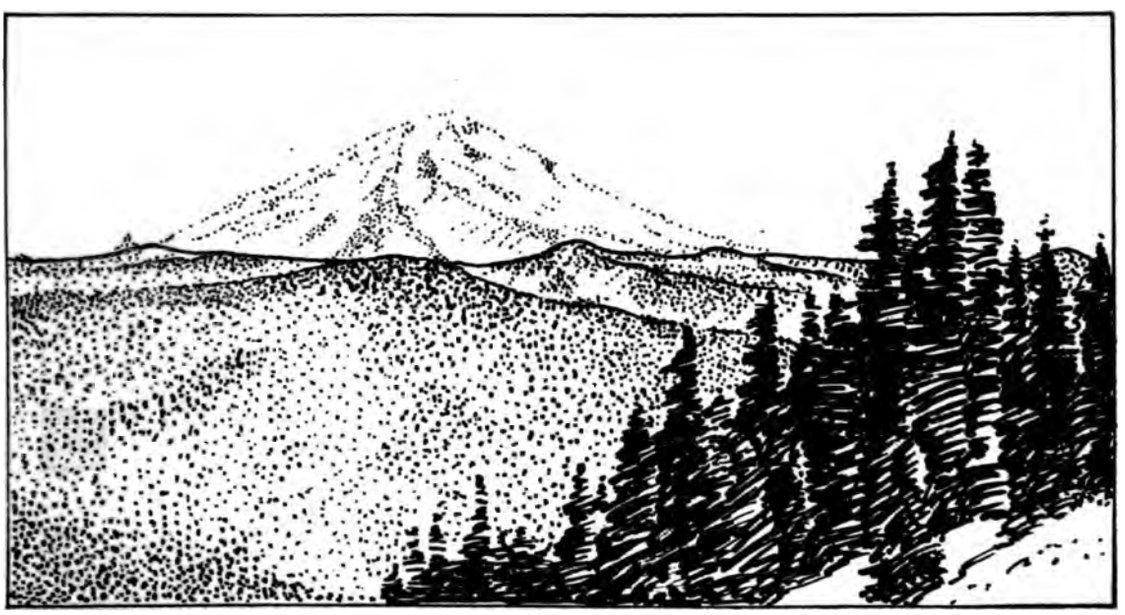
MT. SEATTLE IN JUNE

the whole top of the mountain caved in, seventeen square miles of mountain — a peak bigger than the whole of Mt. Washington, N. H.— sank out of sight. Where it had been I saw far below me one of the most beautiful lakes in the world, and more wonderful than beautiful, for one instinctively feels that a lake ought not to be perched up in a mountain 6,000 feet above the sea, with nothing above it to drain into it and no outlet for anything to drain out of it. The Indians felt this way about it, too. They lived on the Klamath Lakes not many miles away, yet before the white man came none but the medicine men dared to look upon Crater Lake. The only break in the lake's surface, a perfect miniature volcano with a crater filled with snow, is named Wizard Island.

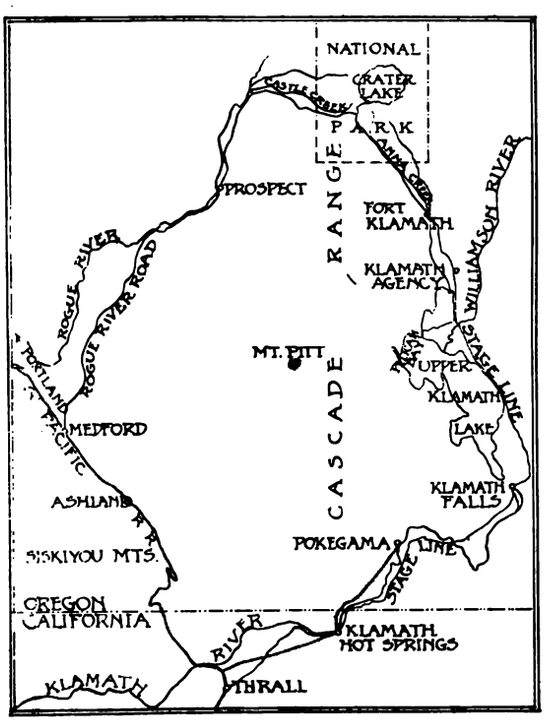


MT. MAZAMA IN ITS ORIGINAL CONDITION

The black line shows the present rim of Crater Lake. The 7,500 feet above that sank to the bottom of the lake

There are still many Indians in the neighborhood on the reservation, although half of the original population was transported to Indian Territory. Drummer David, the Indian who went with us up to Crater Lake, is an example of the best that has been accomplished for the Klamaths by the Government. He has improved his land, built a good house, and bought good stock. The last I saw of him, he was sitting in a new surrey with his wife and several children. The horses were large, showing evidences of cross-breeding with Eastern stock, and well fed. The harness was in good repair. It all had an air of dignified respectability. Across Klamath Lake, near Pelican Bay, was the contrast. A family had pitched camp on a mud-bank in a Tule marsh. Their dugout canoes were of the type used by their ancestors. Their wickiups were the same. And at no time in the world's history could anyone have been dirtier, lazier, or more hopeless looking than they. Yet the Modocs, the kin of the Klamath Indians and just like them, carried on in the lava beds one of the hardest wars which any Indians have ever waged against United States troops. It was for this that they were deported. Besides Crater Lake there are many other peculiar phenomena in this volcano-disturbed country. Not far from the house of the Government's agent, Mr. Arant, is a scar on the mountain side which looks as if someone had been hauling dirt from it. From this almost perpendicular bare spot, bubbles enough water to make a good-sized stream. Many thought that this was an underground outlet from Crater Lake, but it has been found that this spring is higher than the lake's level. Some distance away is Clear Lake, which has the peculiarity of

having its outlet and intake through the same river-mouth. Almost all the year the Lost River, so named because a part of its course is on top of the ground and a part underneath, takes water out of Clear Lake, but when Willow Creek is in flood its water overflows through Lost River into the lake. The other end of Lost River, which goes forty miles to get three, is in Tule Lake, five miles away, and Tule Lake has no outlet at all, but loses



THE ROUTES TO CRATER LAKE
By road from Medford or by rail to Pokegama and by road via Klamath Falls

by evaporation about as much water as it receives from the river.

Now the United States Government has decided to lay violent hands upon this country to restore the awful wreckage which the volcanoes caused. The Reclamation Service is going to rearrange the whole drainage system so that the country can be used for agriculture. A good part of lower Klamath and Tule lakes are really great marshes because they have no adequate outlet. The Government is going to build one for them. The water from Clear Lake is to be taken before it loses itself in its forty-mile meandering and used for irrigation. The water from Upper Klamath Lake will be used for the same purpose. In all, 190,000 acres will be reclaimed from desert and marsh and turned into farms, and the country will again have some semblance of a drainage system.

HOW CRATER LAKE MAY BE REACHED

When all that is done and population comes in, it will be a much more valuable country than it is now. It will be easier of access for the many, and it should of course be so. For the few, however, who enjoy a little roughing-it and who wish to see the country as the volcanoes left it, the time to go is now. There are two ways of reaching Crater Lake. From Medford, Ore., it is a very pleasant three days' journey on horseback or by wagon. By pushing a little, it can be done in two. For people who have never seen a virgin forest of Oregon pine and cedar, that ride is worth while on its own account. The other way is from Thrall, on the main line of the railroad, by a branch line to a lumber camp named Pokegama. From Pokegama to Klamath Falls is an old-fashioned stage-line, six horses to the stage and relays here and there along the road, so that they can keep up a good fast gait for the whole twenty-five miles. But this route also necessitates two days' ride between Klamath Falls and Crater Lake. This route, as far as Klamath Falls, is more or less used now by people from a distance, for many discerning huntsmen up and down the Pacific Coast have come to know that the Pelican Bay region of Upper Klamath Lake is one of the finest places for duck-hunting in the West. There is fishing also, both in the lake and in streams. Now and again someone kills a deer, and over in the ragged country east of Crater Lake it is wild enough to afford a living to a few trappers and hunters who still frequent it.

The town of Klamath Falls, which its inhabitants hope and believe will be an important city when the new line of the Southern Pacific is finished through it—and it is the centre of 190,000 acres of rich farming land, and the railroad point of the thousands who will visit Crater Lake—has already at least one claim to distinction. Wherever, in the West, men sit down to spin big yarns, the man who has been to Klamath Falls or who knows about its snakes and toads invariably takes the prize. And there is a basis of fact in these stories. At certain times in the year, migrations of snakes and toads between the

two lakes go through the town. Snakes' heads stick up through the board-walks; here and there if you look for them, you can see half a dozen wiggling serpents, and in places it is hard to keep from treading on the toads.

Altogether it is a wonderful country. The mountain peaks stick down instead of up, the rivers run either backward or forward, on top of the ground or underneath, and, when an invading army of snakes pass through the town, people notice it only as "a sign of spring."

These peculiarities merely add curiosity to the beauty and grandeur which will make Crater Lake as well known as the other two National Parks, as soon as better transportation is available.

THE FIRST ASCENT OF MT. OLYMPUS

CLIMBING THE SNOW-CLAD OLYMPIC MOUNTAINS WHICH OVERLOOK THE PACIFIC OCEAN

BY

ASAHEL CURTIS

BETWEEN Puget Sound and the Pacific Ocean is the Olympic Peninsula. Its southern part, where it joins the mainland, is a flat country covered with great forests. From Aberdeen and the other lumbering towns on Grays Harbor, millions of feet of timber are exported every year. But the northern part of the Peninsula is uninhabited. It is a triangular, rugged, mountain mass about forty miles on each side. In this area are crowded more than 1,000 perpetually snow-clad peaks. These peaks are among the most rugged on the continent. Their height of only 7,000 to 8,250 feet does not tell the full story of mountains that rise from a forest level of 500 feet, through beautiful, flowery meadows, and on to great crags, sheeted in eternal snow and ice. The enormous annual rainfall of 135 inches, draining off this plateau, has carved out great, black cañons. Viewed from the summits, these valleys, dark with the heavy evergreen forests, look like the bottomless pit.

This region is one of the least known in the United States. The precipitous slopes of the mountains, the dense growth of the forests, and the absence of minerals have kept it from being explored as much as the other mountain areas of the West. There are no settlements and only a few lonely cabins in its dense forests. Little mineral wealth was found by the hardy prospectors that wandered through its fastnesses, and the stories they brought out of the difficulties and dangers encountered deterred pleasure-seekers from attempting this region. It is true that small parties had gone up the valley that drains into Hood Canal, on the eastern slope of the range, but with their pack-trains they could not penetrate beyond the head-waters.

THE "MOUNTAINEERS'" EXPEDITION

No large party had penetrated the main range until the summer of 1907, when the "Mountaineers," a Washington mountain-climbing club, in a party of sixty-five, twenty-six of whom were women, went to the head-waters of the Elwha River and climbed twelve of the highest peaks of the range. To do this required months of preparation, the building of thirty-five miles of trail beyond the existing trails and roads, and packing a large quantity of supplies sixty miles into the mountains, ahead of the party.

The main party left Seattle July 24th; a smaller detachment went in a week later, going to Port Angeles by steamer and walking to a camp ten miles out where the road up the Elwha River ended. From this point the journey, which required five days, was all over a rough trail that wound around the mountain side on the east bank of the stream. Nearly all of the way was through a dense forest of fir, cedar, and hemlock, mingled with alder and vine-maple along the streams. A camp was made near the river every night, each one rolling up in blankets under the trees. No effort was made to pitch tents at these camps and they were not needed under the canopy of trees. For four days, the members of the

party wandered at will, having only to reach the next camp by night, but on the fifth day the Elwha had to be crossed five times on small trees, fallen across the stream, and to avoid any possible accident the party was divided into companies. This arrangement was also continued throughout the outing.

On the afternoon of the fifth day, the party came out into Elwha Basin, a beautiful mountain meadow, at an elevation of 3,300 feet, where permanent camp was made. Here they stayed for two weeks, except for one-night camps on the expeditions that could not be completed in a single day.

THE ASCENTS OF MT. QUEETS AND MT. MEANY

While Mt. Olympus was the principal objective point of the expedition, it was the purpose of the club to make as many other ascents as possible in the short time that the party had. The first ascent was of Mt. Noyes, altitude 7,300 feet, between the head of the Queets and Quinault valleys, which a party of forty made in a single day. All ascents were made in company formation to prevent accidents from falling rocks, and people losing their way. Two parties made the ascent of Mt. Queets, altitude 7,500 feet, and one Mt. Christy, altitude 7,400 feet.

Cloudy, rainy weather prevented the ascent of Mt. Seattle by the main party, although a party of three reached the summit on a reconnoitering trip. Mt. Meany, 7,800 feet high, the sharpest crag in this part of the range, was also climbed by a party of three on a reconnoitering trip. Many of these peaks end in pinnacles so small that only a few people can stand on the summit at one time. And they differ from most other mountains in another way also. Other peaks rise from high ranges and plateaus. The Olympics rise from, and overlook, the sea. From their peaks at evening the mountain climber can see the sun go down into the Pacific Ocean.

The main party was prevented by a driving storm from reaching the top of Mt. Olympus. They tried to make the ascent, but when they emerged from the shelter of a stone ridge at the head of Humes Glacier they met the full force of a thirty-five mile gale that was driving the snow before it and they had to turn back.

The remaining party, however, at the end of two days had clear weather and easily reached the three summits of Mt. Olympus. On the eastern, or lowest, summit they found a paper left undoubtedly by Jack McGlone, who said he climbed it in 1899.

On the middle summit, the second highest, the records of the Parker-Brown-Clarke party were found and placed in a club register. On the western summit, found to be the highest, there were no records and nothing to indicate that anyone had ever visited it. Many claims have been made for this ascent, but it would appear that McGlone was the first to reach the summit of any part of Mt. Olympus and that the honor of reaching the highest point on the mountain belongs to the "Mountaineers." The club is bending its energies to having the Olympics made a National Park. Whether it succeeds or not, it is another one of the little used playgrounds for Americans — or for the more strenuous of them, who now go to the Alps, and to Banff in the Canadian Rockies.

THE STRENGTH OF RACES

CERTAIN INFECTIOUS DISEASES TO WHICH THE WHITE MAN IS IMMUNE, WHICH ARE DECIMATING THE INDIANS AND THE ESKIMOS

BY

DR. C. WOODS HUTCHINSON

WE ALL have, in pensive moments, lamented the passing of the noble red man. Bards have melodiously chanted the melting away of the painted savage like snow before the sun of civilization. Even while we lamented, we have been perfectly willing to share the profits of said disappearance and melting; although, to a purely Pickwickian regret at his passing, we have added a gentle pang of self-reproach in ascribing its occurrence to the vices of our civilization.

Rum, gambling, and venereal diseases are universally accepted as the factors of our own introduction which have caused the ruin of this innocent child of nature. This explanation has such a soothing and soul-satisfying sound, it gives us such a secret sense of superior virtue in being able to resist the destructive temptations to which our red brother has succumbed, that it seems almost a pity to disturb our belief. Besides, the facts supporting it lie so obviously and flatly on the surface of things. The most casual visitor to an Indian reservation or a trader's post can see with his own eyes that poor "Lo" does get most abominably drunk upon the vilest of whiskey whenever he has the price, that he does gamble away the whole proceeds of a season's laborious trapping, or his entire quarter's income and rations, under the skilful manipulations of the white gambler and his female harpies.

But there is another side to the shield. These excesses are both morally and physically lamentably injurious, but the conviction is growing among careful students of the Indian that these influences are not in themselves sufficient to account for his decay, and that others more vital are at work.

VICES NATIVE TO THE INDIAN

In the first place, the Indian was not only thoroughly familiar with all these vices, but had been addicted to them for centuries before the first white man ever set foot upon American soil. Almost every tribe, except a few of the most stupid and degraded, had some form of intoxicant, upon which our firewater was an "improvement" only in the sense of its being more concentrated and enabling them to "get there" quicker. Like all savages, they had been gamblers from their boyhood for countless generations. It was their principal pastime around the lodge fire at night, and their greatest and most eagerly expected feasts and gatherings, at which not merely all the clan but scores from neighboring tribes would come together, beginning with dances, games, and races, would wind up in one gorgeous gambling spree, in which the warriors would stake not merely their ponies, their pelts, and their wampum, but their weapons, their clothing, and even their wives and families.

As to venereal disease, so far from the white settlers bringing it to them, it is now the opinion of the most careful students of the subject that it was actually brought to Europe from America by the sailors of Columbus's second voyage.

On the other hand, there were two things which we did introduce to the Indian, which were entirely new and untried. These were the infectious diseases of civilization, and habits of industry. The former we introduced to him in all innocence and indeed ignorance, the latter under the mistaken impression that they constituted a virtue. Both have proved deadly to a degree.

We never succeeded in making the Indian believe in industry, but we compelled him to either act as if he did or move farther west, and he usually moved. The modern industrial civilization of the Anglo-Saxon type, which proposes to labor with its hands and to make it uncomfortable for anyone who doesn't, has no place for the Indian in its organization.

But the weightiest factor in the decay of the aborigine is one which we have only come to appreciate properly in recent years.

INDIANS AS PLENTIFUL AS EVER

Since we have begun to look into the matter carefully, we find ourselves facing a somewhat unexpected state of affairs. First of all, while accurate data are obviously out of the question, it is the opinion of the most careful students of the American Indian, like Mallery and Farrand, that it is doubtful whether his total population in the area of these United States has ever been very much greater than it is at present. Where the early explorers and pioneers reported attacks by thousands of plumed and painted warriors, swarming from every nook of the forest and from behind every rock on the hillside, the conservative modern historian reads hundreds. For "kings" he reads chiefs; for "nations," tribes, or even bands.

The aboriginal population of this country at the landing of the white man was astonishingly sparse and thinly scattered, and is estimated by Farrand at not to exceed between 500,000 and 700,000 north of Mexico, where to-day the census of both governments show more than 400,000, although this includes many mixed bloods. The second fact on which there is substantial agreement is that our worst campaigns against the Indian tribes — so far from rising to the dignity of even a partial extermination, were little

more than healthy gymnastic exercises for the noble savage — even when, as sometimes happened, women and children were included in the attack or perished of cold and starvation, as a result of defeat. However much at times we may have let our thirst for vengeance get the better of our humanity and our self-control, our wars against the Indians were Sunday-school picnics by comparison with the savage wars to the knife, and the knife to the hilt, which they were constantly waging against one another before our coming, and still continued until the combination of the white man became sufficiently far-reaching to put a stop to them. The Huron-Iroquois alone are believed to have been responsible for the extermination of some fifteen or twenty tribes and the depopulation of an area equal to a small empire. The deadly rifle of the white man has saved at least five times as many Indian lives as it ever took, by putting a stop to this perpetual intertribal warfare. Even the rapacity and the injustice which have often marred our commercial and economic relations with the Indian have been marked in the main by a rude fairness and humanity, which he never even dreamed of practising with his fellows.

We have taken his hunting-grounds, but we have given him valuable agricultural lands and rations in return. And the "pestilence-breeding swamps," which were so fiercely denounced by his sentimental friends, when the northern Indians first began to be concentrated in a south-central reservation, have now been discovered to be the garden of the whole country (Oklahoma), and are eagerly crowded into by the white settlers.

We have frequently and abominably cheated and lied to the Indian in our land deals; but, like the gamblers of the mining camps, we have generally left our victims a grubstake, and have made famine, instead of a yearly visitor to their wigwams, an almost unknown influence in their lives. In other words, our contact with the Indian, demoralizing as it may have been in many respects, has greatly diminished his mortality from death in battle, and from famine. What then has been the element which has injured him most seriously in our contact with him? The infectious diseases of civilization, especially those which by centuries and generations of exposure and loss of virulence have come to be described as "the diseases of infancy." One thing is almost constant in the history of our contact with every tribe: at first, rapid diminution in numbers and vigor, usually attributed to the use of rum and to other vices of civilization; then a period of standstill, later followed in most cases by a slow but steady increase again in numbers. The influences which caused the sudden diminution, the stay in decline, and the adjustment and increase were chiefly the infectious diseases of civilization, and the slow acquisition of immunity to them.

Roughly speaking, I think it would be safe to say that for every Indian that has been killed by bullets, starvation, and alcohol, three have been killed by bacilli. As that experienced observer, Dr. Frederick A. Cook, the well-known Arctic explorer, expresses it: "Many things have combined to bring the downfall of the liberty-loving aborigine, but no blow has been so acute as the warfare of the infectious diseases, and among these infections the most fatal results have been brought about by what we regard as the diseases of childhood."

Dr. Wilfred Grenfell has recently expressed a similar opinion in regard to the Eskimos. Both report attacks of measles, mumps, whooping-cough, and chicken-pox which swept off 20, 30, and even 40 per cent. of a tribe.

Pick up where you will almost any book of travel, of exploration, of study in the Indian country, and you will find it filled with stories of mysterious plagues which swept down upon the villages and tribes and not merely decimated but almost exterminated them.

A VILLAGE EXTERMINATED BY THE MEASLES

My earliest personal contact with the Indians in any considerable number was in the valley of the Columbia River in Oregon. And the first story that I heard from the old settlers about their diseases was of a mysterious plague which had swept down the lower reaches of the Columbia, just ahead of the vanguard of the white settlers. Not merely were whole clans and villages swept out of existence, but the valley was practically depopulated; so that, as one of the old patriarchs grimly remarked, "It made it a heap easier to settle it up quietly." So swift and so fatal had been its onslaught that villages would be found deserted save for the dried and decaying bodies of the dead. The canoes were rotting on the river bank above high-water

mark. The curtains of the lodges were flapped and blown into shreds. The weapons and garments of the dead lay about them rusting and rotting. The salmon-nets were still standing in the river, worn to tatters and fringes by the current. Yet, from the best light that I was able to secure upon it, it appeared to have been nothing more than an epidemic of the measles caught from the child of some pioneer or trapper and spreading like wildfire in the prairie-grass. Even with some knowledge of the problems of immunity, the thing appeared to be incredible until I began to get reports at first hand of equally astounding modern instances.

For instance, a colleague of mine, who had been Government physician to the Coast Survey and stationed in farthest Alaska in attendance upon the men engaged in the construction of lighthouses, told me of the coming of the 1889–90 epidemic of influenza or grippe into those fastnesses. Shortly after it had run its course among the white workmen, a couple of Indians, who had been bringing salmon and berries in from their summer village on one of the islands, ceased to turn up with their supplies. The workmen endured canned provisions in patience for a week or so, and then a couple of men were sent to stir the Indians up. When they landed at the village, they found every member of the tribe attacked by the disease and disabled, so that many of the sick were half-crazed with thirst for want of a single Indian well enough to wait upon them. Over one-third of the seventy-odd inhabitants of the village died outright and another third was so seriously ill that it took them months to recover.

It is now a familiar story from medical missionaries, army surgeons, and tropical physicians all over the world that the diseases which in civilized communities have so greatly declined in virulence as to scarcely even cause anxiety and which are described under the title of the "diseases of childhood," will smite the non-immunized aborigine with the fury of a pestilence. Everywhere that the white race has come in contact with the savage, among the Maoris of New Zealand, the Blackfellows of Australia, the Papuans of Borneo, the Negritos of the Andaman Islands, the Eskimos of the Arctic Circle, there is the same story of measles, influenza, chicken-pox, scarlet fever, mumps, assuming among them the spread and the fatality of a plague.

As for the more serious infections to which civilization has not become immune, Virchow summed up our knowledge of them in one graphic statement with regard to small-pox, namely, that every known nation or tribe that had been exposed to small-pox within the past century and had not adopted vaccination, had been swept out of existence. "*Deleta ab variola*," "destroyed by small-pox."

And this is literally true. All the Oriental races above the lowest stages of civilization, and some indeed in stages little higher than savagery, habitually practice inoculation from a mild case, which, it will be remembered, was introduced into England itself by Lady Mary Wortley Montagu before the days of Jenner. All Occidental races which are not in process of elimination rely upon vaccination.

The other diseases, to which we have acquired but little or incomplete immunity, such as pneumonia, bronchitis, dysentery, etc., fall with tremendous weight upon the aborigine. The mortality is at least double and sometimes quadruple that in the white race; but the contrast is not so vivid or so enormous as in the case of the milder infections.

The most striking illustration of this class is afforded by tuberculosis, at once the child and the deadliest enemy of modern civilization. When we woke with a shudder a few decades ago to find the fact staring us in the face in the boldest of figures that one-seventh of our entire race die of tuberculosis of the lung alone, it was hard to imagine that the situation ever could have been worse. Yet our Indian wards furnish us with abundant ground for the belief that it was much worse, and that not so very long ago.

It was not until comparatively recent years that tuberculosis appeared to have gained much headway among the Indians. So long as they clung to their ancestral life in the open air, they had comparatively little opportunity to contract the disease, and if contracted, their natural method of life supplied them with a considerable part of the modern open-air treatment. But so soon as they began to be limited to a definite reservation and crowded into permanent villages, or, with well-meant but often deadly kindness, gathered into schools and missions, the disease quickly appeared among them and created fearful havoc. Particularly was this the case when they were induced and often coerced, by a

well-meaning but not particularly intelligent government, to give up their tepees and hogans and become civilized at one bound by living in those air-tight wooden boxes known as frame-houses.

Absolutely the only thing that the Indian liked about these new quarters was that they could be made extremely warm at the expense of ventilation, which his tepees never could, and he naturally proceeded to work this advantage for all it was worth. The result was that within five or six years the agency physician would have been almost as glad to get the tribe out of their houses as the Government was to get them into them.

Although generally known among physicians that the reservation Indian suffered frightfully from tuberculosis, it was only within comparatively recent years that actual statistics covering the question began to be collected.

During a residence of six years on the Pacific Coast, I made careful inquiries of agency and other physicians, ranging from Alaska to Mexico and covering a considerable part of the inter-mountain region and the great Southwest. From almost every quarter came accounts of enormous mortalities from tuberculosis, 30, 50, and even 70 per cent. of the total deaths being attributed to this cause: and this, it will be remembered, in comparison with a rate in the surrounding white communities of barely 12 per cent. Some of these statements were, of course, according to the inevitable tendency of the human mind in studying a new and surprising phenomena, a trifle exaggerated. Estimates of 50, 60, or 70 usually scaled down to about 40 per cent. on actual statistical study. But there was a sufficiently appalling residue left even after the most careful allowance for overstatement.

TUBERCULOSIS AMONG THE SIOUX

The most careful and admirably collected series of statistics which have yet been published are those of Dr. James A. Walker, of the Rosebud Agency of Dakota. These covered ten years of careful personal observation by Dr. Walker himself and are as absolutely reliable and dependable as statistics can well be in this imperfect world. Starting out in a cautious and conservative frame of mind, indeed strongly impressed with the quite correct belief that the actual condition of affairs had usually been overstated and exaggerated, Dr. Walker proved as a matter of coldest and most inescapable fact, that of nearly five thousand Ogalalla Sioux, no less than 42 per cent. of all who died, and their death-rate was a high one, succumbed to tuberculosis.

It must be remembered, too, that these were not a handful of wretched Piutes living from hand to mouth on roots and snakes, or of lazy Siwash squatting over their clam-beds and their rancid salmon, but as superb specimens of the noble savage as were ever imagined by Cooper. Tall, erect, fine-looking fellows, the best fighters that ever wore feathers in their hair, as scores of United States regiments can testify to their sorrow, averaging five feet nine and one-half inches in height and thirty-eight and three-quarter inches in chest-girth, nearly two inches above the average of our boasted superior white race, living in good houses, supplied with abundant rations of the best quality by a paternal government, owning their own cattle, and with the finest hunting range in the United States within easy distance, nothing could have been much more ideal than their physique and their surroundings —and yet these splendid children of nature went down before the attack of tuberculosis like cattle before the rinder-pest.

In the eleven agencies from which I was able to obtain exact figures, through the kindness of the Commissioner, the Hon. Francis Leupp, the average tuberculosis death-rate was between 50 and 60 per cent. of all the deaths recorded. So that I think it would be perfectly safe to say that the death-rate of the Indian from tuberculosis, even under the most favorable conditions, is from four to six times that of the surrounding white population.

From the point of view of mere general vigor of physique, this state of affairs is difficult to account for. From that of the fearful susceptibility of an absolutely virgin tribe to a new and untried infection, it is perfectly harmonious and logical. A most graphic picture from life of just how tuberculosis affects a newly exposed tribe is given in a private letter courteously sent me by Dr. Paul Hutton, army surgeon at Fort Seward, Alaska.

Of 117 Indians examined by him in their houses and shacks in the villages surrounding the fort, no less than 24, or 20.6 per cent., had well-advanced pulmonary tuberculosis, 12 per cent. more in an early stage, 16.2 per

cent. had tuberculous diseases in other organs and regions, making a total of 48 per cent. who were tuberculous.

Now as to the future of the tribe. These 117 adults had had 312 children of which 172 (or 55 per cent.) are dead, with indications of tuberculosis as a cause in the vast majority of cases.

BECOMING IMMUNE TO CONSUMPTION

As we have no ground whatever for assuming that our primitive ancestors, when first exposed to the disease, had any higher degree of natural resisting powers than have the more vigorous specimens of our Indian tribes, we have, I think, fairly good ground for the belief that, destructive and deadly as tuberculosis still is, it has undergone considerable diminution in virulence in the past 1,000 or 1,500 years. It is, of course, well known that a marked decline in its death-rate has occurred within the statistical period, though that, of course, dates back only about seventy years. Within this time, however, there has been a diminution of nearly 50 per cent. in the actual death-rate from consumption, and the process is steadily going on. Most of this, of course, is probably due to our greater knowledge of the disease and more intelligent methods of fighting it, but a considerable share is undoubtedly due to the immense improvements in food, housing, and general sanitation that have been made, and the gradually increasing resistance which the race has developed.

An interesting straw pointing in this same direction is that, as between civilized races, those which have been longest and most constantly exposed to tuberculosis and other city and slum infections possess a decidedly higher resisting power to the disease than those who have lived in the open.

One of the many interesting features about the brilliant and successful Jewish race is that its death-rate from tuberculosis is only about one-fourth that of the surrounding community. In the most crowded wards of New York and Chicago, for instance, the Jewish population has a death-rate from tuberculosis of about 150 per hundred thousand living. Its Gentile neighbors in the same wards, in the same streets, have a death-rate of from 450 to 550 per hundred thousand living. Throughout the country at large the contrast is almost as striking. The general average death-rate from tuberculosis, according to the United States census for 1890, was about 160 per hundred thousand living. That of the Jews, especially collected and compiled by Dr. John Billings, was only 22 per hundred thousand living.

This, of course, brings us to the question, how is this immunity on the part of the race or mitigation in the virulence of the disease brought about? The answer, of course, must be purely speculative and a mere expression of probabilities. But it would appear that two chief groups of factors are at work. One of these is the tolerably obvious one of the dying or serious crippling under the attack of, let us say measles, a hundred generations ago, of those who were most susceptible. Consequently, this type would leave either no descendants at all or a smaller number of descendants than those who had a higher resisting power. Each successive generation would, therefore, contain a larger and larger number of the descendants of those who are most highly immune to the disease. A smaller number in each successive generation would be attacked, and those who did develop the disease would resist it better and exhibit it in a milder form. Of late years it has been suggested by one of our most thoughtful and brilliant students of bacteriology, Dr. Theobald Smith, that side by side with this there tends to go on a process of lessening of virulence and poisonousness on the part of the infectious germ.

The one thing which any germ must require, if it is going to survive, is to provide for its escape from the body of one victim to another. Therefore, any strain of any germ which is so virulent as to kill its host or victim before it has had this opportunity to transfer itself to another, will tend to become extinct. The milder strains of the germ, which allow their victim to live until he can excrete them in his sputum or other excreta for a sufficiently long time to be fairly safe of transferring them to another individual, will be likely to survive and dominate the situation.

Many of our disease-germs quite closely resemble bacilli which are harmless, normal inhabitants of our food-tubes, skin, or surroundings. It is quite possible that we have literally bred our own disease-germs, as society has often made its own criminals in the slum and the stews.

The outlook for the educated Indian seems even worse. In the last report of the Medical Officer of one school to the Indian Bureau of Canada, the careers of whose 250 graduates had been closely followed for seven years, no less than 75 (or 30 per cent.) were already dead of tuberculosis.

This may partially account for the oft lamented slight permanent results of our efforts to educate the Indian.

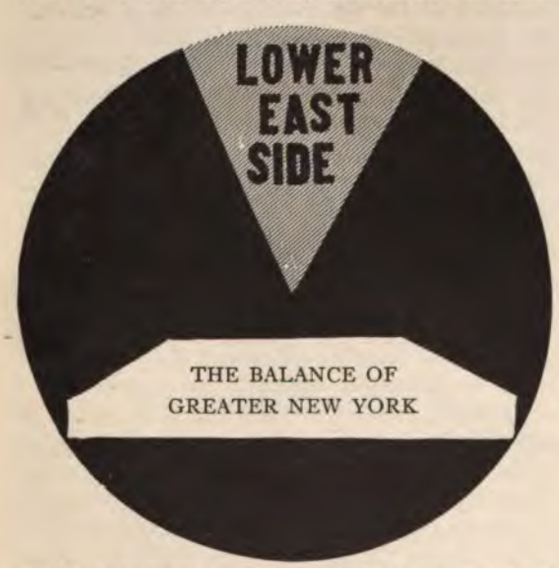
THE MENACE OF CROWDED CITIES

THE EVILS THAT HAVE GROWN OUT OF THE HERDING OF IMMIGRANTS IN CONGESTED TENEMENTS IN ONE AMERICAN CITY

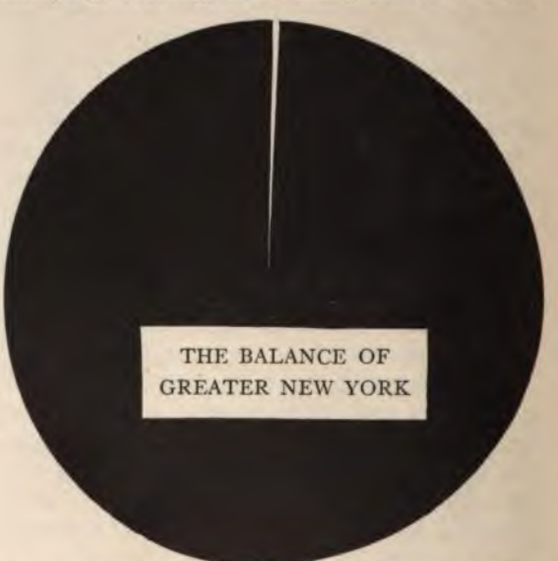
BY

CLAUDE H. MILLER

IN THE exhibition of the evils that result from a crowded population, recently held in the American Museum of Natural History in New York, statistics were robbed of their dryness by models and exhibits showing the conditions in the tenement-house districts.



THE PROPORTION OF THE POPULATION OF THE SLUM DISTRICT TO THAT OF THE WHOLE OF NEW YORK



THE PROPORTION OF THE AREA OF THE SLUM DISTRICT TO THAT OF THE WHOLE OF NEW YORK

New York has the most congested centres of population of any city of the western world. There are more than 1,000 people living in each of many blocks of the slums

With a population of 4,000,000, New York already has the most congested centres of population in the world. In many places on Manhattan Island, more than 1,000 people are living in a single block. The population of the whole world could live in the little state of Delaware if they were crowded together as they are in eleven typical blocks on the lower East Side. In the territory bounded by Catharine, Market, Hamilton, and Monroe streets, 1,672 people are jammed together — sleeping, cooking, and raising families in one acre of ground, a space little more than 200 feet square. If they died, there would scarcely be room to bury them on the space on which New York's tenement-house laws permit them to live. This acre holds the world's record.

The object of the exhibit was not only to suggest remedies for existing conditions but what is more important to focus public opinion on the desirability of drastic tene-

ment-house laws to prevent the duplication of similar conditions in the city's future growth.

NEW YORK'S MARVELOUS GROWTH

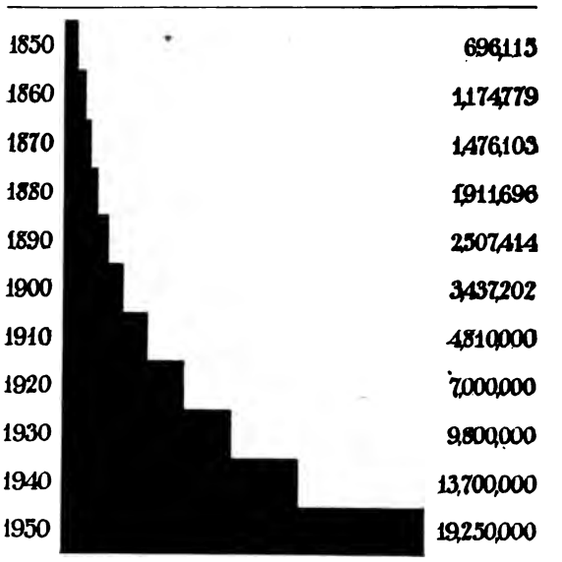
By 1950 New York will probably have a population of 25,000,000. Six people will be fighting to get on the street-cars, crowding each other off the sidewalk, and struggling for air, water, and sunshine where one is doing it to-day. This estimate does not take into account the additional enormous growth that must necessarily take place outside of Greater New York, in New Jersey and on Long Island — in fact, everywhere that tunnels and railroads (and possibly flying-machines) can bring people to Manhattan Island to do business and get them back home in time for dinner.

These population estimates are not guess-work. In the light of past experience, they have proven to be extremely reliable. Preliminary estimates made far in advance to show what the population would be in 1870, 1880, and 1890, and based on the percentage of increase shown for fifty or one hundred years previous, have come within 2 per cent. of the actual results obtained by the census on each of these years.

These charts show that in 1950 the population per acre in residential territory will be from three to five times what it is now. The borough of Manhattan Island will reach a maximum of 2,500,000 in about twelve years, after which residence districts will be crowded out by business, and in thirty years more it will have lost half a million people. The other four boroughs of Greater New York — Brooklyn, Bronx, Queens, and Richmond — will have to take care of the increase, and the problem will be to distribute it so that there will be room for decent living-quarters as well as parks, playgrounds, and schools. There will be plenty of territory to do this with, for while many blocks now have a density of more than 1,000 to the acre, there are more than 100,000 acres in New York City with only three to the acre.

Most New Yorkers do not realize the extent to which congestion has been carried on in the lower end of Manhattan. Because of its wedge shape, the population, mostly foreigners, has been jammed into its apex until the average East-Side family of seven is forced to live in three rooms.

Every New York business man suffers inconvenience because of crowding. The streets and sidewalks are already inadequate to handle the enormous crowds who are employed in the downtown office-buildings, but he knows very little about the kind of crowding that doesn't stop at making people uncomfortable but kills them. The effect of a large population herding together is to create a



GROWTH OF POPULATION IN NEW YORK FOR 100 YEARS
From 1900 to 1950 estimated

race of weaklings. The average height and weight of 7,511 five-year-old boys who were measured and who live in one, two, three, and four rooms showed that the youngster who lives in the one-room tenement averages only 39 inches in height and weighs 38.2 pounds; and when he is fortunate enough to have a "four-room" parent, he is 41.4 inches tall at five years and weighs 40.1 pounds. Therefore, the less space a child has at home, the shorter and thinner he is.

HOT-BEDS FOR TUBERCULOSIS

An especially interesting and valuable exhibit showed the fight against tuberculosis that is being waged in the slums, where more people between the ages of 25 and 40 die of consumption each year than of all the other 1,500 diseases recognized and classified by the medical profession. One of the chief causes of tuberculosis is dark bedrooms — rooms which have no ventilation whatsoever — where from three to five people sleep. There are 300,000 such rooms south of Fourteenth Street. No ray of sunshine has penetrated

them since the mason put the last brick in place, perhaps twenty years ago. Death lurks in the doorway, and the great white plague is offered victims with a lavish hand.

A census of 250 typical East-Side families showed that less than a quarter sleep two in a room; about 50 per cent. sleep three or four in a room; and nearly 25 per cent. sleep five or more in a room.

A case in the exhibit showed samples of the million transfer-slips distributed on New York's street railways every Sunday, through the courtesy of a large department store that controls the advertising privileges. On the back of each is printed in the simplest and most direct language how to avoid giving consumption to other people and how to prevent them from giving it to you. It tells you to throw away all the bottled consumption cures and get fresh air and sunshine.

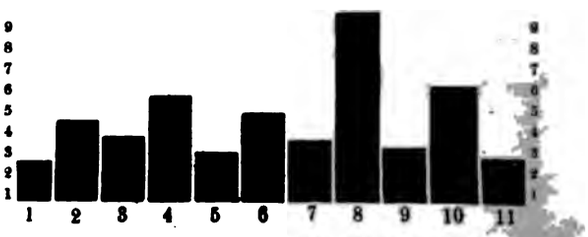
THE SCHOOLS LAGGING BEHIND

The educational statistics were especially interesting. A chart showed that of 83,000 children who enter the elementary schools, only 30,000 graduate. About 14,000 of these enter high school and less than 2,000 graduate. A strong appeal was made to work up public sentiment for increased school facilities. Prominent educators say that twenty children per teacher should be a maximum, and yet New York's average is forty-two per teacher, with thousands in classes of sixty. A silhouette stretched across a window showed a line of children pleading to be admitted to a schoolhouse. The caption said that there are 70,000 part time scholars in the schools of greater New York, and the farther these children are from school, the nearer they are to the policeman.

In this connection it was claimed that the ignorance of the tenement-dwellers makes the improvement of conditions especially difficult. About 40 per cent. of the families are without newspapers; 77.7 per cent. without music; 87.5 per cent. without plants or flowers, and 95.5 per cent. without magazines.

The opportunity for every member of the family to earn something has a tendency to keep children out of school and to make the truant officer's work especially difficult among the uncounted thousands of children on the East Side.

The exhibits of the National Consumers' League — a body of men and women banded together to fight the employment of child-labor — showed that while the laws of New York prohibit the employment of children under fourteen age of years in factories, no law reaches them when such work is done at home, and three-year-old youngsters are put to work tying paper-flowers or pulling out



DEATH RATE PER 1000 CHILDREN UNDER FIVE YEARS

From diphtheria and croup, in certain square blocks, 1905-1906

1, 2, 3, 6, 9, Italian; 4, Jewish; 5, 7, Italian and Jewish; 8, Italian and colored; 10, mixed; 11, New York City. This shows a death-rate in a crowded Italian and colored quarter three times higher than the average for the whole city

bastings, safe from the interference of the laws. You are given a "white list" of department stores which the governing board recommends as interested in the welfare of working-women and girls; so far as the board can learn, these houses deal justly with their employees.

In connection with the transit problems which New York must meet and settle in the near future, a big map shows that the best solution for the transit problem is to produce living conditions which do not require transit, and suggests the best sites for the future location of factories outside of Manhattan, where sweat-shops will be unnecessary. In this connection, photographs and models of the cars used in other cities showed a great prevalence of the double-decked cars. On a photograph of a type of fender used on all the surface cars in Liverpool, was a card which said:

"The city of Liverpool has put an end to running over children: why should not New York do the same? This perfect 'municipal fender' has pushed four hundred and fifteen people off the track and has never failed to work. It is not patented and anyone can use it."

EXAGGERATED VALUES OF REAL ESTATE

The skyscraper problem was not dealt with seriously because skyscrapers simply mean crowded streets during rush hours. The enormous increase in value of New York real estate has really made forty-story buildi

necessary to yield an adequate return on the value. A model showed that the assessed land value occupied by the two famous Manhattan skyscrapers—the Metropolitan Life Insurance Building and the Singer Building—had increased enormously. In 1849 the Metropolitan property was worth about $60,000; it is now worth about $3,000,000 — a fifty-fold increase.

A cube one-tenth of an inch on a side represented $24, the price paid for Manhattan in 1626. A cube four feet on a side showed its present taxable land value, exclusive of improvement — $2,700,000,000.

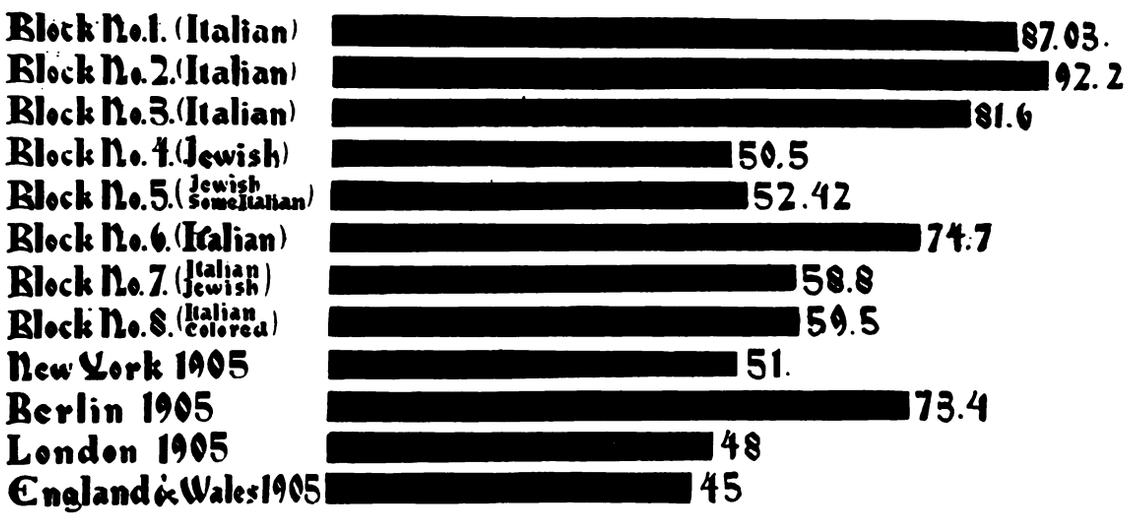
A list of the owners of the most valuable holdings of land in Manhattan contains as leaders:

The Astors, with 71 acres worth $69,528,700.
Trinity Church Corporation, 32 acres worth $30,125,100.
Robert Goelet, 17 acres worth $14,560,400.
The Rhinelanders, 16.8 acres worth $7,921,500.

DIAGNOSIS EASIER THAN CURE

In studying the present congestion of New York, investigators have found the general causes to be immigration, the land system, the massing of factories in the lower part of Manhattan, the lack of proper transit facilities, the lack of town planning, and the inadequate supervision of living conditions. All sorts of remedies have been suggested, but it is far easier to locate the disease than to find a cure. Among the proposed methods of relief are model tenements, coöperative kitchens in the middle of city blocks, roof playgrounds, four-deck streets with automobiles and people on the top deck, street-cars on the next, trucks on the street level, and subways beneath.

One method worthy of closer investigation was suggested by photographs of the Berlin coöperative workingmen's homes, where a thousand families live together in comfort; where every tenement has a courtyard and a children's playground with grass and trees; and where they put twenty-family houses in the most aristocratic sections in order to mingle the classes and to keep anyone from holding his head too high — or too low.



DEATH-RATE OF CHILDREN UNDER FIVE YEARS, PER 1,000 LIVING AT THOSE AGES
In certain square blocks in New York City, 1905-1906

Most of the suggested solutions failed to take into account the gregarious habits of the congested and the fact that they herd together as much from choice as from necessity. It is characteristic of most foreign races that they like to live near their friends and relatives when they come to this country. One association, however, the Industrial Removal Office, showed how it had gone into the slums and had distributed on farms and throughout the smaller centres more than 37,000 Jews during the year 1907.

If the claim be true that the kind of people who live in the slums are not a permanent population, but that such districts should be regarded merely as stopping-places or hotels where people remain only until they can learn the language and get a view of the possibilities of this country, then the remedy

will come by wiping out the tenements. In herding this way, immigrants often are simply duplicating the conditions of living that they had at home. If these places did not exist, they could not duplicate the deplorable conditions.

Although no clear-cut remedy for the ills of crowding was suggested by this exhibit, one thing was at least apparent to everyone who attended — that the greatest city is not the one where the greatest number of human beings live, but the one where the greatest number are enabled to live like human beings.

MY OLD MAN OF THE MOUNTAIN

BY

JACOB A. RIIS

TO-DAY, poking through a pile of papers on my desk, I came across a piece of rock that brought vividly to my mind a queer, half-forgotten meeting up in the Montana mountains. It lies before me, a lump of white limestone, I should judge, with something cropping out on one side that looks like silver. Perhaps it is. More likely it is one of the kobold tricks that the mountain plays those who would wrest from it its secrets. The man who dug it knew them, if his long quest had brought him little else. Silver or not, it is nothing to me. It is him I am thinking of. This is what the rock shows me:

A sunny day in late autumn, far up among the peaks of the Continental Divide. Forest and mountain-top east, west, and south, as far as eye reaches. Nowhere a sign of man except a single bright-green streak of alfalfa where two counties meet. To the north, far below, the Prickley Pear Valley, with the Missouri River in the distance and the city of Helena hiding in under the hill. Round about, stunted pines, towering rocks, and fallen trees over which the kinnikinick berry creeps, seeking to hide with its carpet of softest green the wounds struck by the woodman's axe or the blast of winter storms; down at the foot of the peak we had just left, so small that they looked like big dogs, our horses quietly grazing; besides them, scanning the landscape with eager eye, my Man of the Mountain.

We had gone up there for a half-holiday, my friend Condon and I, lured by the October sunshine. We had cooked our coffee and our bacon, and had climbed to the top of the nearest peak for a look around, and now we were on the way down when our unsuspected neighbor turned up. He saw us, but gave no sign till we were within hail, when he returned our shout of welcome with a short hello.

"I thought you were some of the officers from the fort," he said, with a shade of resentment in his voice. "Some came this way last week — with their women."

The way he said it told the why of his disappointment. It was rare, without doubt, that any such touch of the civilization he had left behind as young women on horseback came by there. He had heard the horses, he added shortly, and had come out to see.

He stands there in the picture, a stocky grizzled veteran of a day that has almost passed, his overalls one pervading patch; bearded, weather-beaten, and with grimy, calloused hands, but with a certain clean look about him for all that, and the kindest blue eyes, out of which there looked a child that had never grown up. His hut was not far away, he said, and his "holes." Would we come and look at them? he asked wistfully. He was a prospector and all alone; had been ever since Jim went away. Would we come? He would show us; it was not far.

But the sun was already sinking toward the west and we had a long way home over bad roads; so we told him not then, and his face fell. But perhaps we would come again? In answer to our question he told us that he had been there seventeen years, up among the peaks. Always alone? After Jim went, yes! But when we tried to find out what became of Jim, he grew suddenly mute and did not again refer to him. It was from a miner we met on the road to Helena that we

afterward learned that tragedy of the mountain. One day Jim, who burrowed in the neighboring hill, was missing. A week passed and his friend went to see why. He found him dead in his hole. Since then he was quite alone.

For the rest, the old man talked freely enough, as we lay in the dry grass of the clearing, the horses browsing near. He had farmed in South Dakota once, and worked on the Union Pacific Railroad when it was being built. The minute he said Pacific I sat up with a jerk. His blue eyes had haunted me from the start with a suggestion of I knew not what. But when he spoke that word I knew. He was of my blood. No one else pronounces it so. At least I never heard any one but a Dane do it. I asked him abruptly:

"Where did you come from?"

"From North Slesvig," he said. It was the province which Germany wrested from Denmark when I was a boy, and upon the border-line of which I was born.

"Yes," I said, "but from what town?"

"Agerskov," he answered, a village across country, perhaps twenty miles from my home. I sprang up and held out my hand.

"Shake, old man," I said in Danish, "I was your neighbor. I came from Ribe."

He stood and looked at me like a man stunned. Slowly his big blue eyes filled with tears; he turned on his heel and went away without once looking around. Mr. Condon and I watched him go in silence, till the forest closed behind him and we heard only his steps as he made his way through the brush.

A sudden idea came to me and I shouted to him to come back. We heard him halt and I ran toward the edge of the clearing, where presently he appeared, making no attempt to come nearer.

"Can you read Danish?" I called to him. I could hear the surprise in his voice that struggled with the effort to master his emotion, as he called back:

"*Ja*, should I not? It is my mother tongue."

"I will send you some books," I shouted, "and we will come again."

He nodded and turned back. The next moment the wilderness had swallowed him up, and we saw him no more.

He was not the first prospector I had met in that region where the memory of Last Chance Gulch and the forty millions of gold they washed out of it still holds the imagination fast. The main street of Helena follows the course of the gulch and some of the early miners' log huts stand yet at the foot of it. Farther up, where the gulch loses itself in the backbone of towering hills, and in Grizzly Gulch, there are placer miners still sifting the gravel of the little brook and dreaming of tracing the mother lode whence all the gold came. They are a race by themselves, like so many lonely moles, ever delving, growing gray and old, but never giving up hope of a "strike" that would make them the most unhappy of men by taking from them the sole reason for their existence. I had met and talked with more than one of them, always of the sure fortune that lay just beyond reach in the bowels of the mountain, but Rudolf was the first of my own people I had seen there. Danes are not miners, naturally; they are farmers. Rudolf was his name, he had told us, Mathies Rudolf.

We were both glad of an excuse for making another trip to the mountain next day. We went up loaded with provisions, fruit, and milk, which a good woman in Helena to whom we told our story sent along. Following the trail the old man had made, we found his hut in a little clearing, with his potato-patch alongside, and himself testing some specimens of ore in his mortar. The shack, with its roof of clay and stove-pipe set in inverted tin pans, was black with age, but clean. A freshly baked loaf lay on the table and a Danish newspaper a year old. There were two bunks, but only one was in use. Perhaps Jim used to come over sometimes. We did not ask.

He took us to see his "holes." There were five of them along a path from the hut, worn by his tireless feet. They were from forty to seventy feet deep, neatly timbered within and with every bit of rock and dirt carried off and disposed of so as to make no litter at the mouth of the mine. There was a windlass with which he had drawn every bucketful of it up alone. Into the depths led a ladder. I peered down, but could not see the end of it. He had built it, felled every tree, and cut every timber for each shaft. As I followed the rungs I thought what countless steps his feet had taken upon it, and looked up to find him watching me with a hopeful smile.

"I find nothing yet," he said, "but some day, maybe ——" This time it was I who turned away my head.

As we lay under the solitary pine on top of the hill, he told us the simple story of his life. He was seventy-six, he said, "or seventy-five, anyway." In the old country he was a farmer, but he left home "rather than swear to the Prussian flag" after the war of conquest, as did many hundreds of his countrymen. So he had come over the sea, and in the course of the years had found his way there. In summer he dug his holes to make good his claim, down to where water came in and stopped there because it was too hard work for one man after that. In winter he chopped wood, enough to give him money for the little he needed to pursue his prospecting when the snow melted. In the long summer evenings he sat under the big pine where we were lying and watched night settling upon the mountains. He pointed out to us the tops far and near and the gaps in the jagged range, the woods and the valleys; and as he spoke his eye kindled and we understood that though he had failed to find gold in these hills, he had that which was better by far, the best they had to give, a young and hopeful heart. If the old tree had a story to tell of that night when our meeting had opened doors of memories long barred, it kept its secret.

Over there, he said, nodding toward the strip of green alfalfa that contrasted vividly with the yellow and brown of the mountain, were his only neighbors. There were women there, and children. They were at least five miles away as the crow flies; probably ten or a dozen through the woods.

He seemed to see farther with his naked eye at seventy six than I through my glasses, nearly a score of years his junior. I was curious to know if it had always been so and asked him. Twenty five years before, he replied, "a kind of dimness" came over his sight, but it cleared again in the pure air up there in the heights and now he saw as well as ever. And then his thoughts turned to his great hope. "Some day, perhaps ——"

His eye had been straying to the picture on the front page of *Puck*, one of the papers I had brought to him, and he reached out for it.

"What fools we mortals be," he read slowly and laboriously, and nodded once or twice. He laid the paper away. Whatever was in his thoughts he gave no sign.

"Mathies," I said, "you are an old man. Some day you will get sick and die."

"Sure," was all he said.

"But alone — like Jim," I cried with concern.

He gave me a quick look and averted his face. But almost immediately he turned toward me. No fear in those quiet blue eyes.

"If there is nobody to help me, I will," he said simply.

When we caught our last glimpse of him, he was going back over the hill to his hut, alone. He did not turn around once, but went steadily, leaning on his staff, and presently the hill hid him. "If there is nobody to help me," he said. But there will be. For that night, before I left Helena, I told the people of the city his story and pledged them, from the Mayor down, to keep an eye on old Mathies so that Jim's end shall not be his. But of that, Mathies knows nothing, up in his mountain.

I meant to end here. But as I wrote the last lines, into my office walked Mr. Condon, whom I thought two thousand miles away. He is Superintendent of Education in Helena and was in the East attending a convention. He brought me greetings from the mountains and from old Rudolf. In midwinter he had climbed up to his peak to see how he fared. The snow lay deep, and the path from his half-buried shack to the spring was the only track of living thing in the wilderness. The pine trees stood with sagging branches, and no sound jarred upon the vast solitude. In his hut Rudolf was found—making coffee of dried peas—cheery, and ruddy, and as full of hope as ever; full too of the recollection of his happy day in the autumn. His table was littered with papers, mostly in his mother tongue, which I had sent out and Mr Condon had managed to get up there in Christmas week. Rudolf fairly shone with gratitude and delight, and insisted upon spending his last teaspoonful of real coffee upon his visitor.

Three months more, he said hopefully, eyeing the white waste outside, and he could begin digging again. He guided Mr. Condon out to the road, waved good-bye, and, as his guest set his face toward Helena and the valley, turned back to his own life, once more the lonely Old Man of the Mountain.

The World's Work

WALTER H. PAGE, EDITOR

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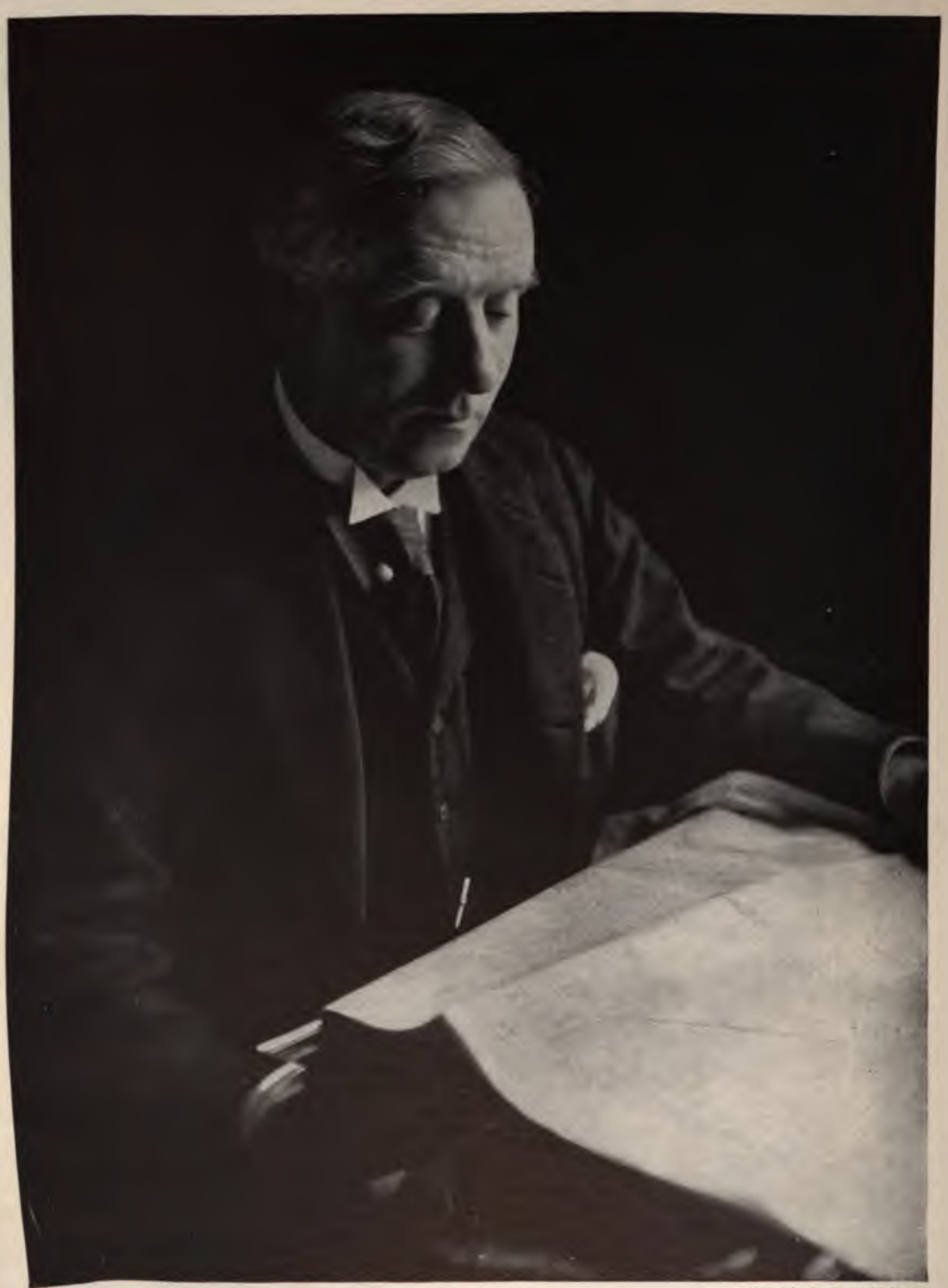

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THE RIGHT HONORABLE HERBERT HENRY ASQUITH

THE NEW BRITISH PRIME MINISTER

THE WORLD'S WORK

JUNE, 1908

VOLUME XVI NUMBER 2

The March of Events

THIS session of Congress has done nothing spectacular. It has been a session mainly of commonplace routine, and little work of great value, aside from routine, has been completed. The two most pressing large subjects, currency reform and tariff reduction, had not been practically dealt with when this was written. The one had been much discussed, the other dodged. There is no doubt that the people will endorse the Administration's policies at the polls this year, but the present Republican majority in the House seems likely to be cut down, because it did too little.

During the session, few of the President's important specific recommendations have become laws. Yet the President, by his incessant energy, has dominated Congress and he has been the strongest force in his party and in the government in shaping legislative tendencies and in mapping out programmes for the future. By reason of his insistence and his dominant influence, there has come a great change in the attitude of Congress toward several large policies.

First and foremost, the attitude of Congress toward corporations has changed. They are not likely to be "bled" again for campaign funds, nor to exert so strong an influence on legislation as has long been their habits. In the next place the attitude of Congress and of the people towards our land — our natural resources — has greatly changed. All the while, too, our place of importance among the nations has risen; and a more liberal and intelligent foreign policy is approved by the Senate. In these important and progressive changes, the principles that the President stands for have won their way, even if most of his recommendations of specific legislation have been disregarded.

The significant changes are continuous, too, such as the increasing restlessness of both branches of Congress under oligarchical leadership; the growth of a new kind of attention to the people's rights wherever they have been ridden over by corporations or by violators of law; and, a general loosing of old party bonds and methods.

No strong leaders have been developed in either party during this Congress at either end of the capitol. The men to whom the public looks for leadership now are elsewhere — Mr. Taft in the Cabinet, Mr. Bryan "at large," Governor Hughes at Albany, and Governor Johnson at St. Paul. It would be a piece of good fortune if the legislative branch of the Government should this fall be reinforced with stronger men — men who can shape policies and do constructive work. May it not be that the present Congressional methods discourage such a degree of independence as leadership demands?

No disorganized army ever needed a great leader as the Democratic party now needs one, nor ever offered such a chance for leadership. If a strong man were to arise who were in dead earnest about immediate tariff-reduction and who would refrain from befogging the subject with a cloud of generalities about vague or obsolete subjects, he could put a new quality into the political atmosphere.

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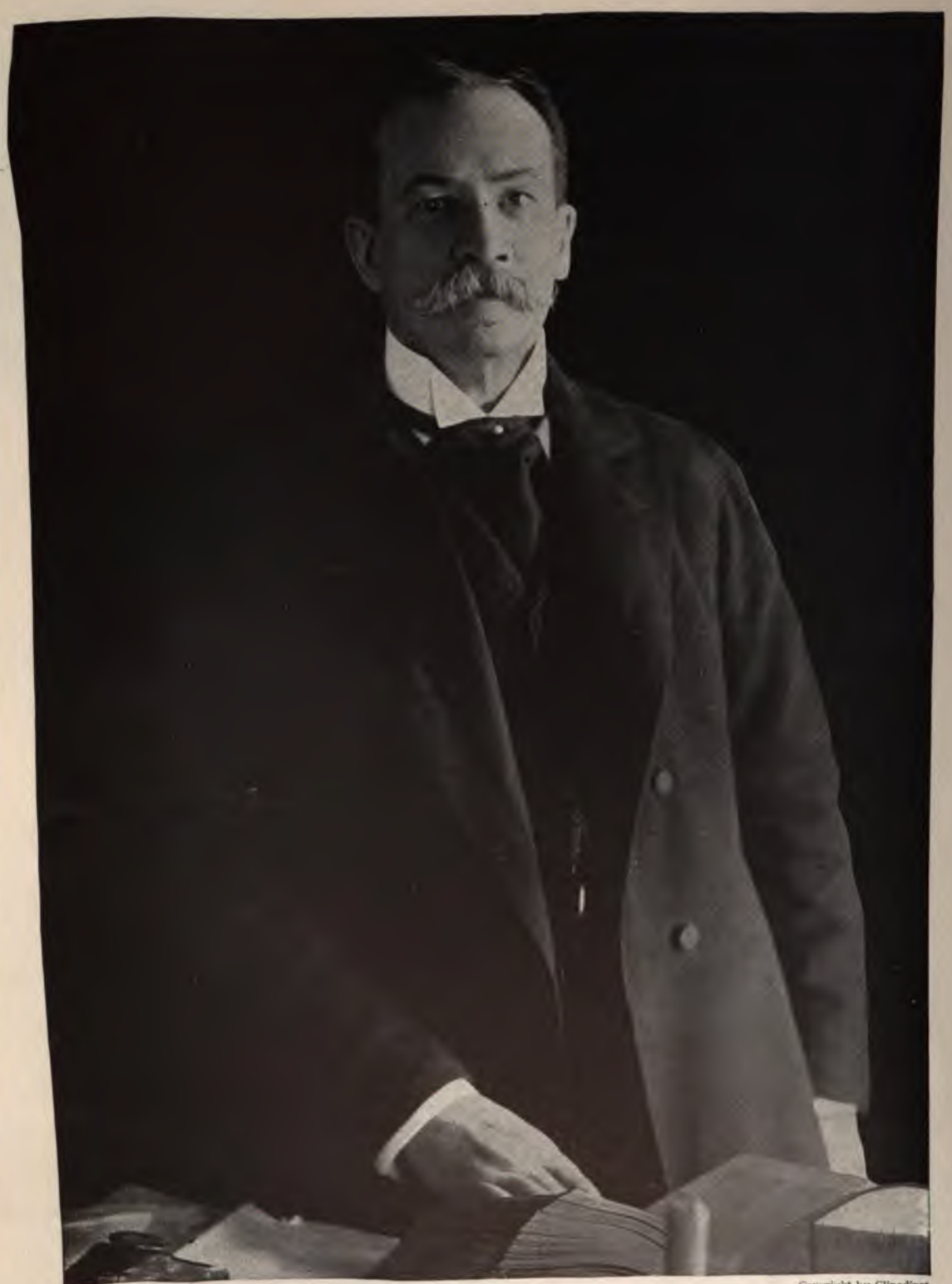

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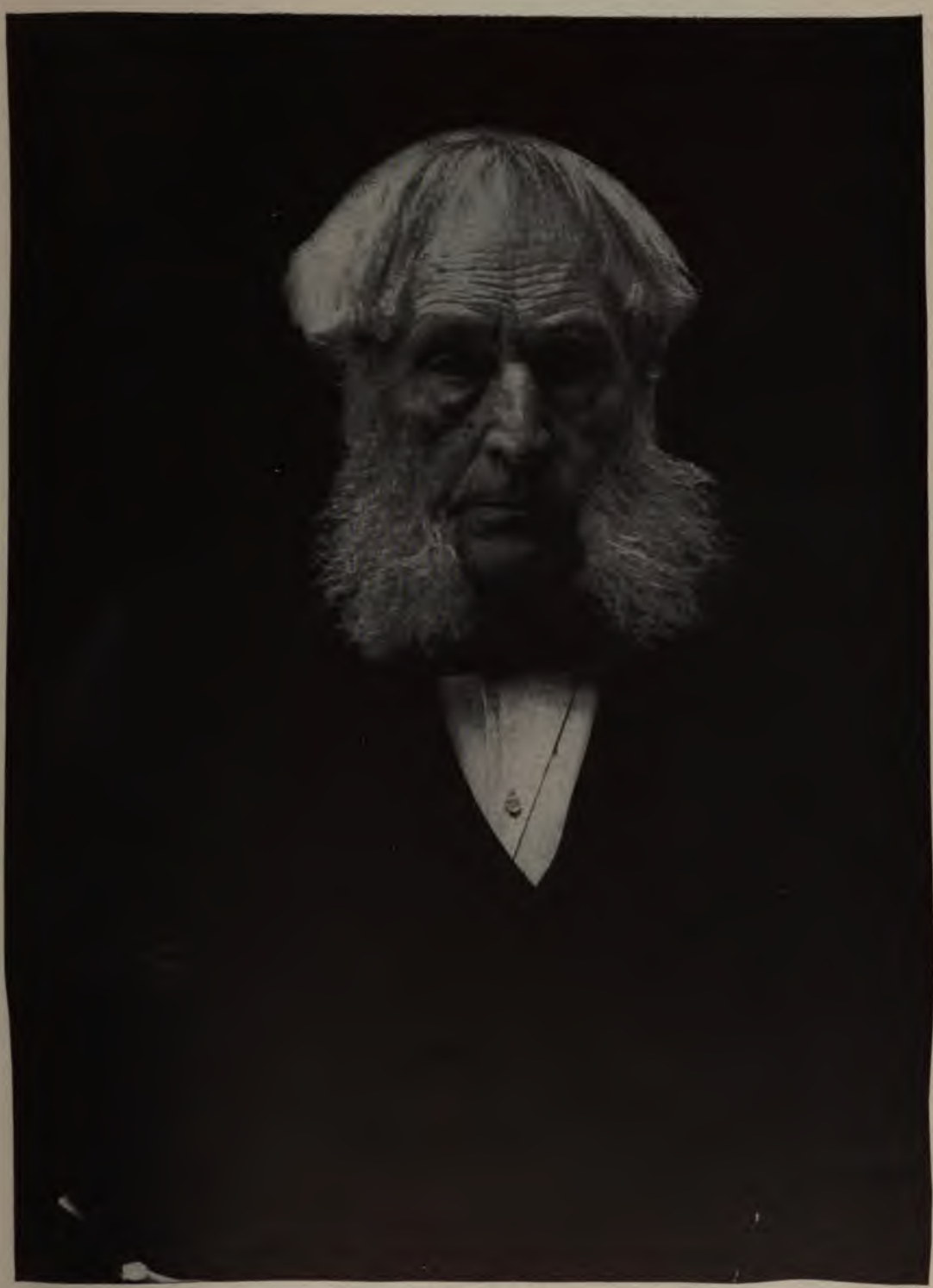
DR. DAVID JAYNE HILL

WHOSE APPOINTMENT AS AMBASSADOR TO GERMANY AGAIN RAISED THE QUESTION OF ADEQUATE SALARIES AND OF RESIDENCES FOR OUR AMBASSADORS

MRS. JULIA WARD HOWE

"THE MOST DISTINGUISHED AMERICAN WOMAN," WHOSE EIGHTY-NINTH BIRTHDAY WAS MAY 27TH

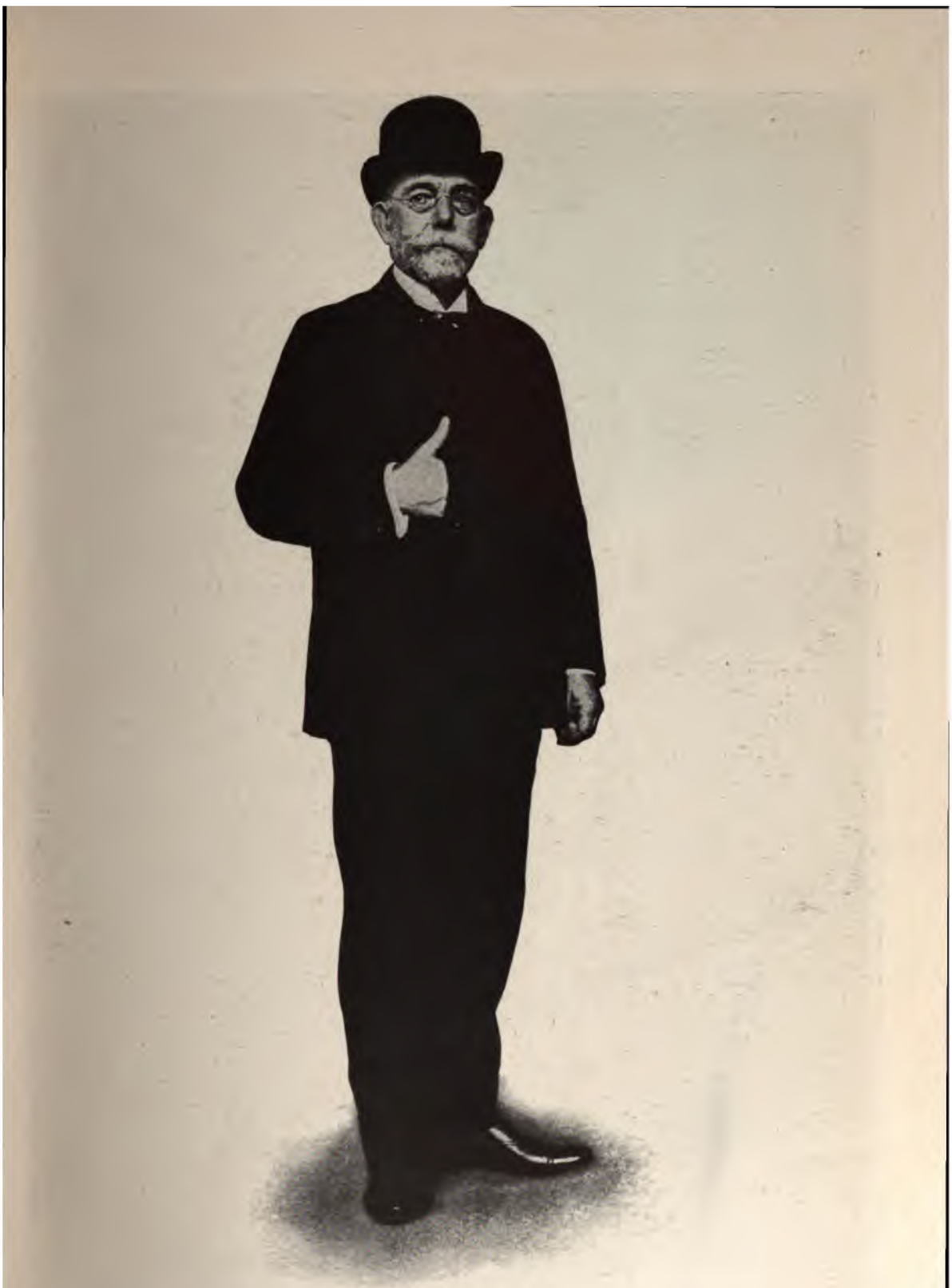
[See "*The March of Events.*"]



MR. JOHN BIGELOW

THE DISTINGUISHED AUTHOR, DIPLOMAT, AND CITIZEN OF NEW YORK WHO LATELY EDITED "THE LETTERS AND LITERARY MEMORIALS OF SAMUEL J. TILDEN" AND WHO, AT THE AGE OF NINETY-ONE, IS STILL ACTIVE AS THE PRESIDENT OF THE BOARD OF TRUSTEES OF THE NEW YORK PUBLIC LIBRARY

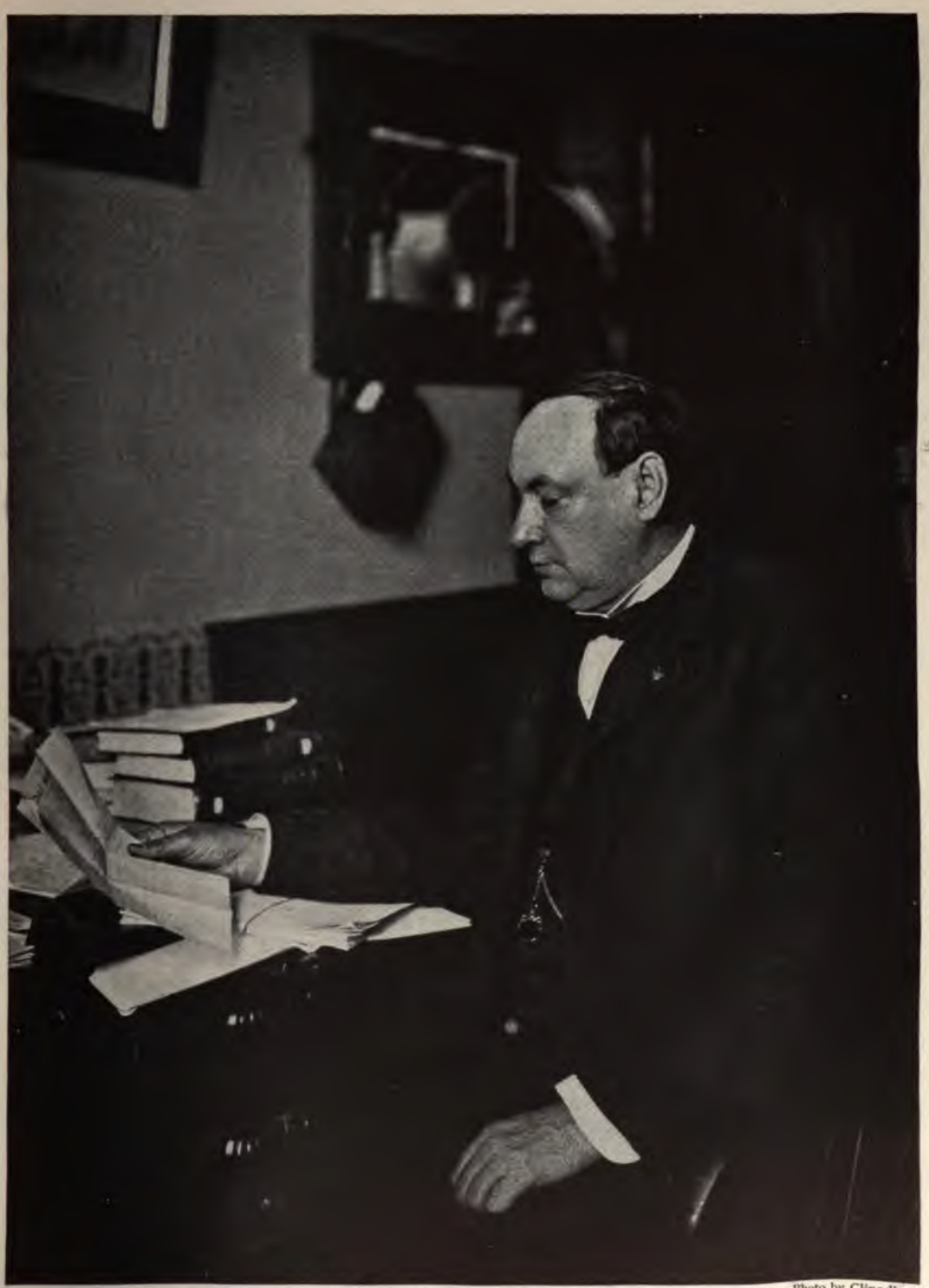
[*See "The March of Events."*]



DR. ROBERT KOCH

THE GREAT GERMAN BACTERIOLOGIST WHO RECENTLY VISITED THE UNITED STATES

[*See "The March of Events."*]



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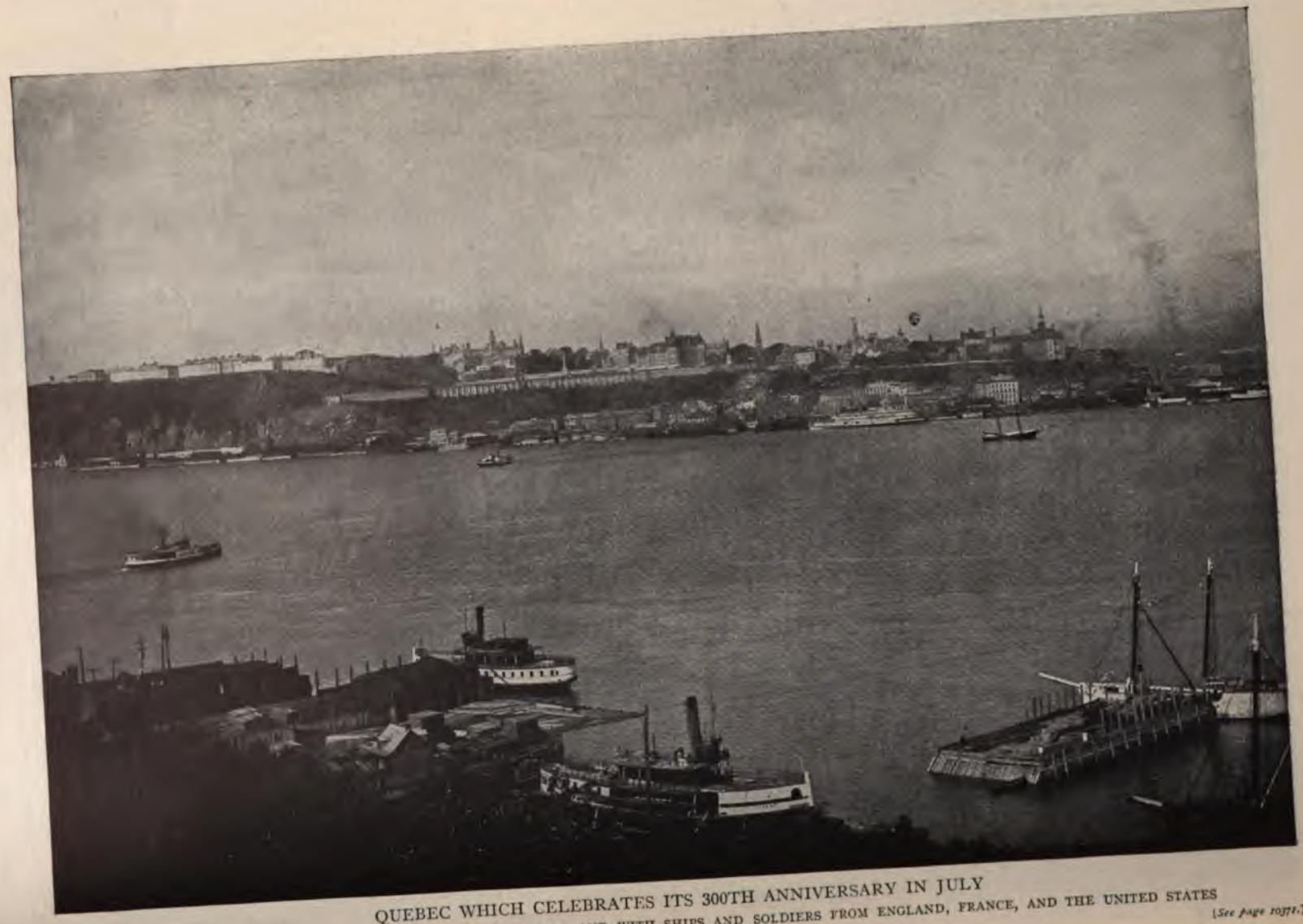
DR. HARVEY W. WILEY

WHOSE TWENTY-FIVE YEARS OF INVESTIGATION AS THE HEAD OF THE CHEMICAL LABORATORY OF THE DEPARTMENT OF AGRICULTURE LED TO THE PASSAGE OF THE PURE FOOD LAW AND HAS BUILT UP A FOOD CONSCIENCE IN THE MINDS OF THE PEOPLE

[See "*The March of Events*."]



QUEBEC WHICH CELEBRATES ITS 300TH ANNIVERSARY IN JULY

IN A HISTORICAL PAGEANT WITH THOUSANDS OF ACTORS AND WITH SHIPS AND SOLDIERS FROM ENGLAND, FRANCE, AND THE UNITED STATES

(*See page 10771.*)

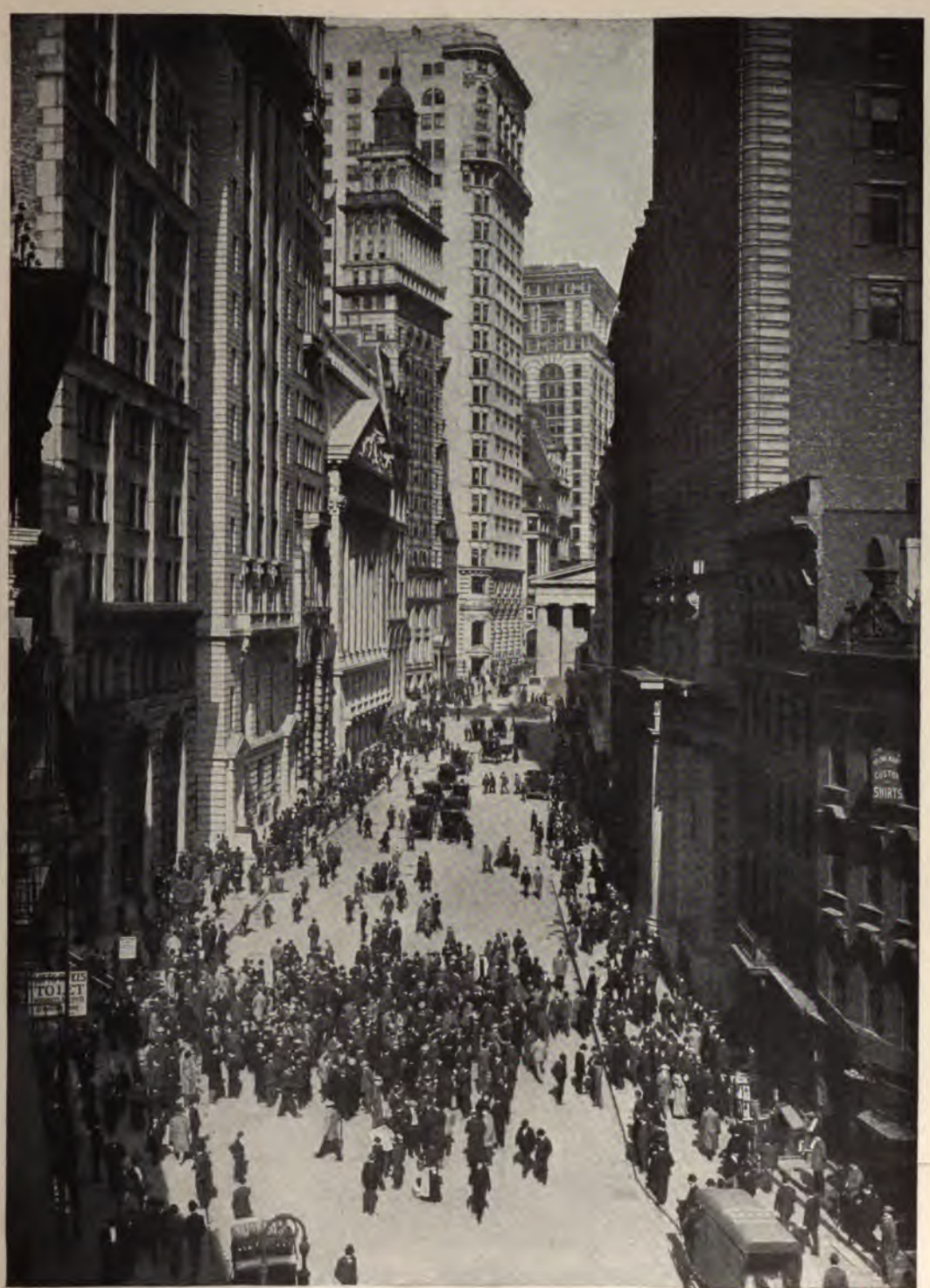
PART OF THE NEW BUILDINGS OF THE COLLEGE OF THE CITY OF NEW YORK

A CITY INSTITUTION, WHICH COST MORE THAN $6,000,000. DEDICATED WITH IMPRESSIVE CEREMONIES ON MAY 14TH

THE CORNER OF BROADWAY AND WALL STREET

NO. 1 WALL ST., THE BUILDING IN THE CENTRE OF THE PICTURE, STANDS ON GROUND RECENTLY SOLD FOR $750 A SQUARE FOOT, A VALUE LARGELY DUE TO THE CONCENTRATION OF FINANCIAL BUSINESS IN THIS SECTION. THE FIRST NATIONAL BANK IS THE BUILDING ON THE LEFT AND THE SPIRE OF TRINITY CHURCH IS IN THE FOREGROUND

[*See page 10315.*]



THE CURB MARKET ON BROAD STREET, NEW YORK

WHERE BUSINESS IS DONE IN SECURITIES NOT LISTED ON THE STOCK EXCHANGE. THE CURB IS IN SESSION IN THE OPEN STREET, RAIN OR SHINE, WINTER AND SUMMER. THE STOCK EXCHANGE IS THE BUILDING WITH THE LOW FAÇADE ON THE LEFT OF THE STREET

[See page 10315.]

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ON THE FLOOR OF THE NEW YORK STOCK EXCHANGE

WHERE ALL TRADING IN STANDARD STOCKS AND BONDS IS FOCUSSED. THERE ARE MORE THAN 1,000 MEMBERS SOME OF WHOM HAVE PAID AS MUCH AS $95,000 FOR THEIR MEMBERSHIP. THE UNIFORMED MEN IN THE PICTURE ARE MESSENGERS. IF A MEMBER IS WANTED AT THE TELEPHONE HIS NUMBER APPEARS ON DUPLICATE BLACKBOARDS AT OPPOSITE SIDES OF THE ROOM

[*See page 10315.*]

AS THE NATIONAL CONVENTIONS APPROACH

AS THE national conventions come near, the people measure with increasing accuracy the several possible nominees. It is a very strange thing how, out of the immeasurable mass of comment, praise, blame, more or less inaccurate biography and gossip, and an infinite deal of mere froth — how out of all this fact, fancy, rumor, perversion, and distortion, the public mind at last comes to make a very clear and generally accurate portrait of any man who is put forward for a Presidential nomination.

Mr. Taft is coming through it all remarkably well. There has been little criticism of him — none, in fact, worth serious attention; and his large qualities of fitness have in the popular judgment come to be clearly understood and rightly valued. He has had no effective opposition.

Governor Hughes of New York, who permitted himself, in a wholly proper and dignified way, to become a candidate, did nothing to promote his chances. He made no speeches, even indirectly, for this purpose. He was never really "in the race," because he was not entered soon enough, because he lacks quickly popular qualities as a public man, and most of all because he is not known to any considerable part of the people of the United States. But his high character as an executive and his firmness have made a good impression. He is never likely to be a popular candidate for the Presidential nomination — a candidate whose nomination the people will demand — but he may conceivably at some time in the future receive a nomination if a convention should have a deadlock and if he continue in the meantime in public office.

Mr. Cannon, some of whose friends had hope of his nomination, is further from such a possibility than he was six months ago. He does not present a dignified or attractive figure on so large a canvas. He appears, as he is, a forcible and successful country politician — coarse, shrewd, with some sound, old-fashioned qualities, but relying rather on tricks of management than on the strength of principles. His presidential aspirations have left him weaker in the public esteem than he was before.

Senator Foraker has made his usual trade and swapped support, after a noisy opposition, for a further lease of public life. No doubt this was all that he expected. Senator Knox was never further in the race than any "favorite son" may go. The people of the country do not know him well; and so far as they know him, they associate him with the service of great corporations, in spite of his work in prosecuting them while he was Attorney-General. His election to the Senate was understood to be "satisfactory" to certain large corporations — a sufficient reason why the public, in its present mood, would not seriously consider him in connection with the Presidency.

Mr. Fairbanks began early and made a deliberate and straightforward effort to secure the nomination. But he is not a man of Presidential proportions. Else the unjust caricatures of him as an icicle would never have stuck in the public mind, nor would the silly stories about his cocktails have had any effect on public opinion. Any man who can, so to speak, be run off the track by such ridicule had no good chance in the beginning.

Mr. Bryan has continued to go counter to precedents and normal calculations by remaining the strongest candidate for the Democratic nomination while he has shown that he will be the weakest candidate for the Presidency. The smaller the chance of his election, the surer his nomination seems to be. The strangest part of this strange career is that the stronger the opposition to him becomes among the masses of his party, the surer the leaders of the party seem of nominating him — this in spite of the fact that he has not himself built up these leaders into a machine. They seem to have made the machine themselves. He has demonstrated the value of personal advertising in politics to a degree never reached before. You may analyze him and his popularity to your utmost, and there will remain an element of mystery in it that will baffle you. The only satisfactory explanation of all the facts is the absence for a dozen years of any competitor in his party for popular favor. But how can you explain this absence?

Governor Johnson, of Minnesota, the only other Democrat who is seriously thought of as a possible nominee, came into the race too late; and, when he came, he came too tamely. His utterances on national subjects have lacked the bugle-note, as Judge Parker's lacked it four years ago. Mr. Bryan can speak forth nonsense more rousingly than Governor Johnson speaks sense. Governor Johnson may receive the nomination — that is at least

conceivable, but it does not seem at all probable now. Conceivably, too, a "dark horse" may be nominated at Denver; but that, too, is improbable. It seems almost certain that the Democratic party will permit Mr. Bryan to lead it to practical extinction; and this may be the best method at last to go about getting a new start in life, a start with a fresh courage, with new leaders, with fixed principles. One more effort to elect Mr. Bryan will be practically certain to lead the way to a breach in the solid South.

The most noteworthy facts that have been emphasized by the quiet approach of the two conventions is the value, in a Presidential campaign, of beginning early and the certainty that the popular choice of a candidate is to a very great degree determined by the extent to which a man is known — even personally known. The three most popular men now in public life are Mr. Roosevelt, Mr. Bryan, and Mr. Taft. They have a wider personal acquaintance than any other three men in the country, and they each have a kind of genius for making acquaintances.

It is noteworthy, too, that public opinion has made a pretty accurate measure of every man who has appeared as a probable nominee of either convention.

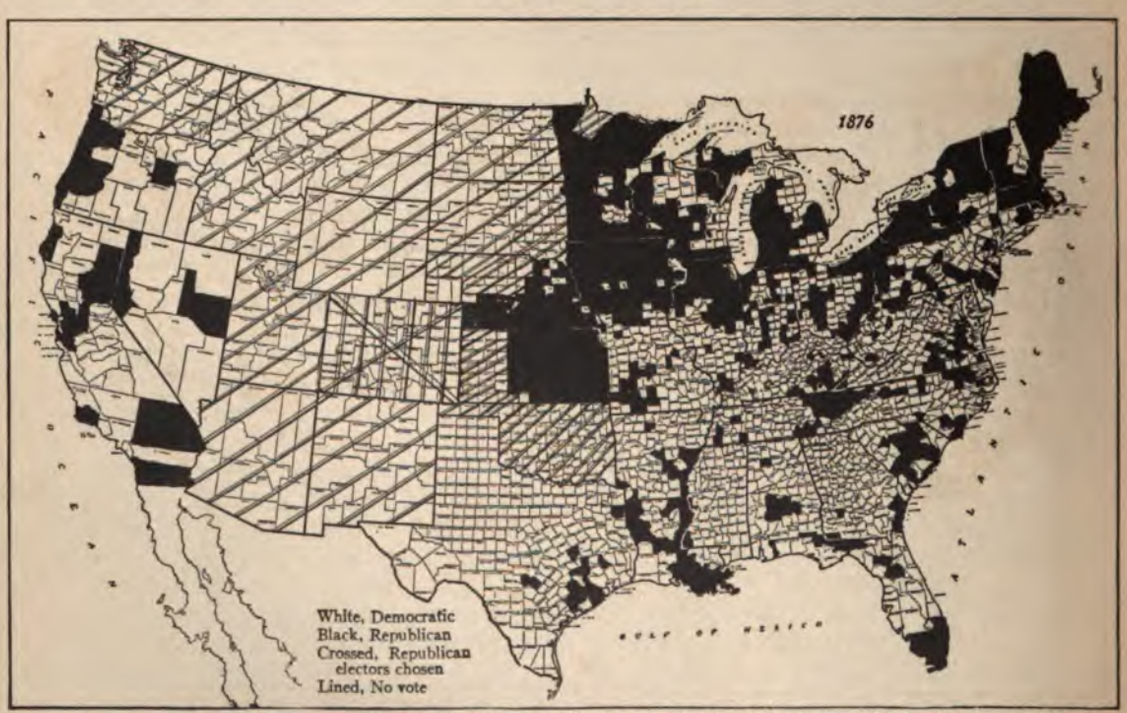
MAPS OF PRESIDENTIAL ELECTIONS

THE accompanying maps, showing the popular votes at the last five Presidential elections and at the election of 1876, make plain at a glance the progressive decline of the Democratic party and the constant growth of the Republican party since Mr. Bryan's rise.

They show the Presidential vote by counties. The black and the white areas, therefore, do not accurately indicate the vote in the electoral college, but the relative popular strength of the two parties at each of these elections.

From 1876 to 1904 there were, of course, eight Presidential elections. At four of them the Democrats cast the largest popular vote, and at the other four the Republicans cast the largest vote.

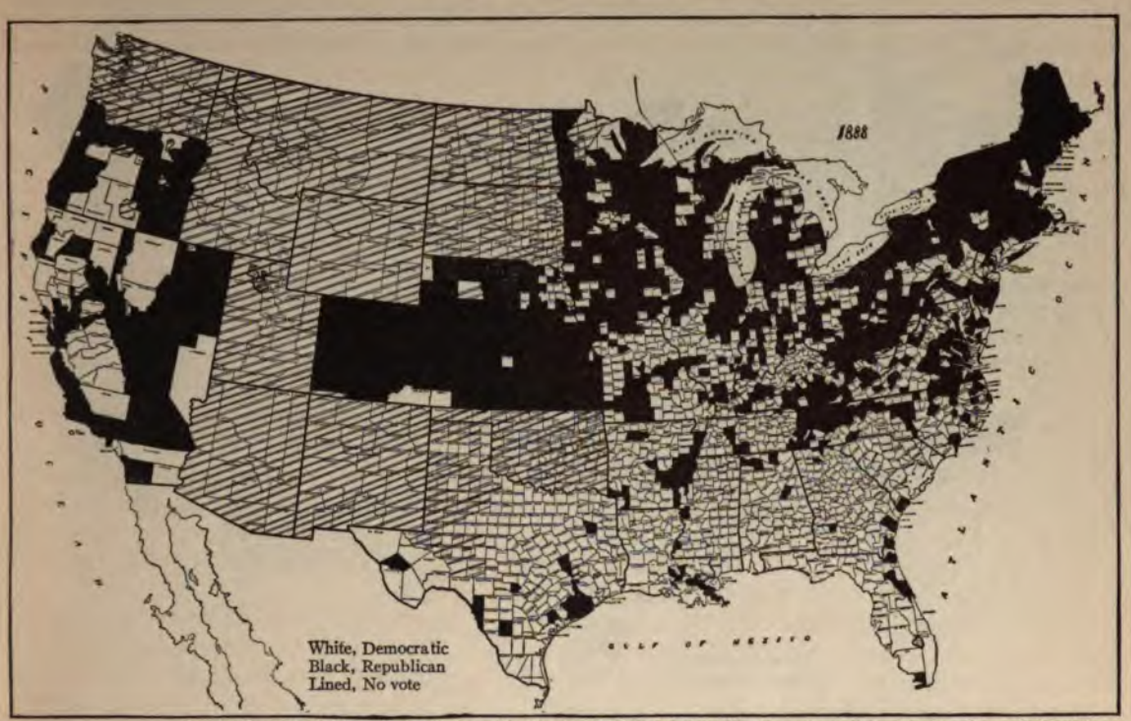
The Democratic pluralities were as follows: In 1876 Tilden over Hayes, 250,935 plurality; in 1884, Cleveland over Blaine, 62,683 plurality; in 1888, Cleveland over Harrison, 98,017 plurality; and in 1892, Cleveland over Harrison 380,810 plurality. Cleveland received the largest popular vote cast at every one of the



From Professor Frederick J. Turner's paper on "Sectionalism in the United States," by the courtesy of the *American Journal of Sociology*

THE PRESIDENTIAL VOTE OF 1876 BY COUNTIES

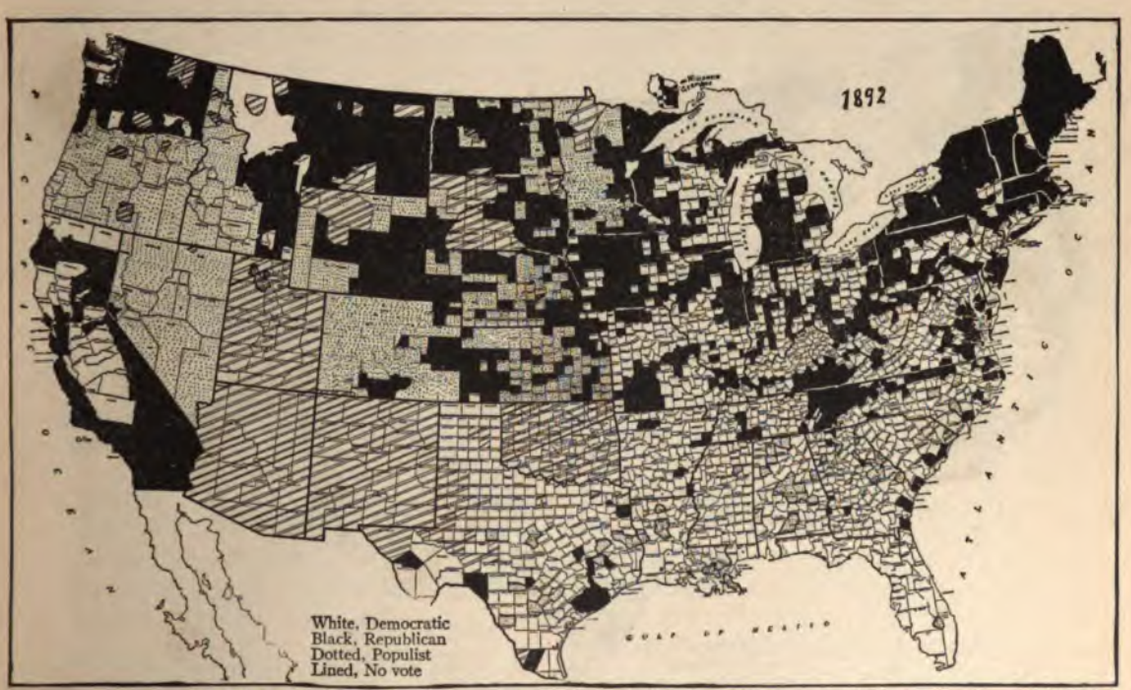
Tilden's plurality (popular vote) was 250,935 votes over Hayes who became President



From Professor Frederick J. Turner's paper on "Sectionalism in the United States," by the courtesy of the *American Journal of Sociology*

THE PRESIDENTIAL VOTE OF 1888 BY COUNTIES

Cleveland's plurality (popular vote) was 98,017 votes over Harrison. Harrison was elected



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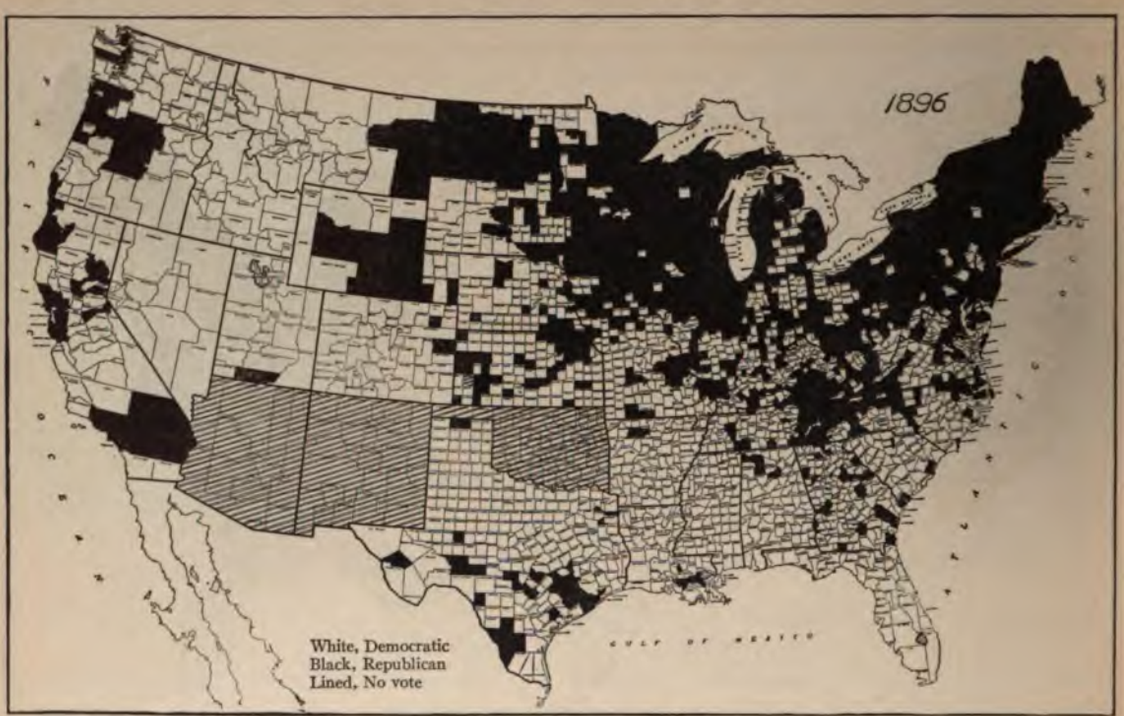
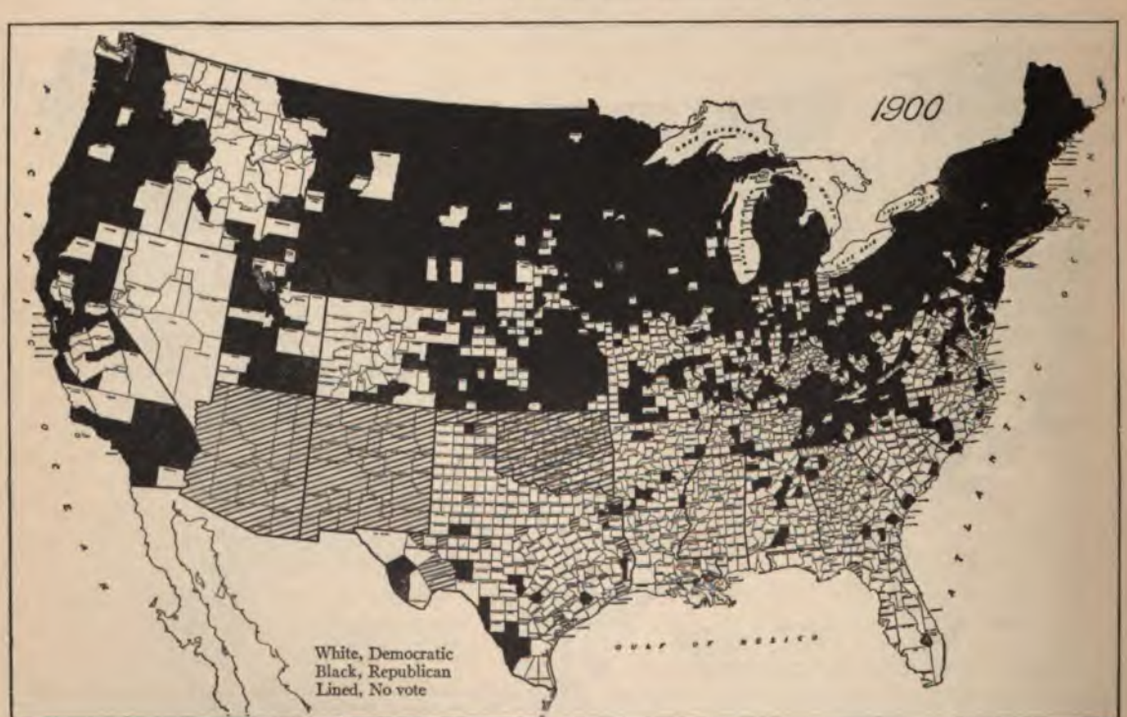
THE PRESIDENTIAL VOTE OF 1892 BY COUNTIES

Cleveland's plurality (popular vote) over Harrison was 380,810 votes and Cleveland was elected



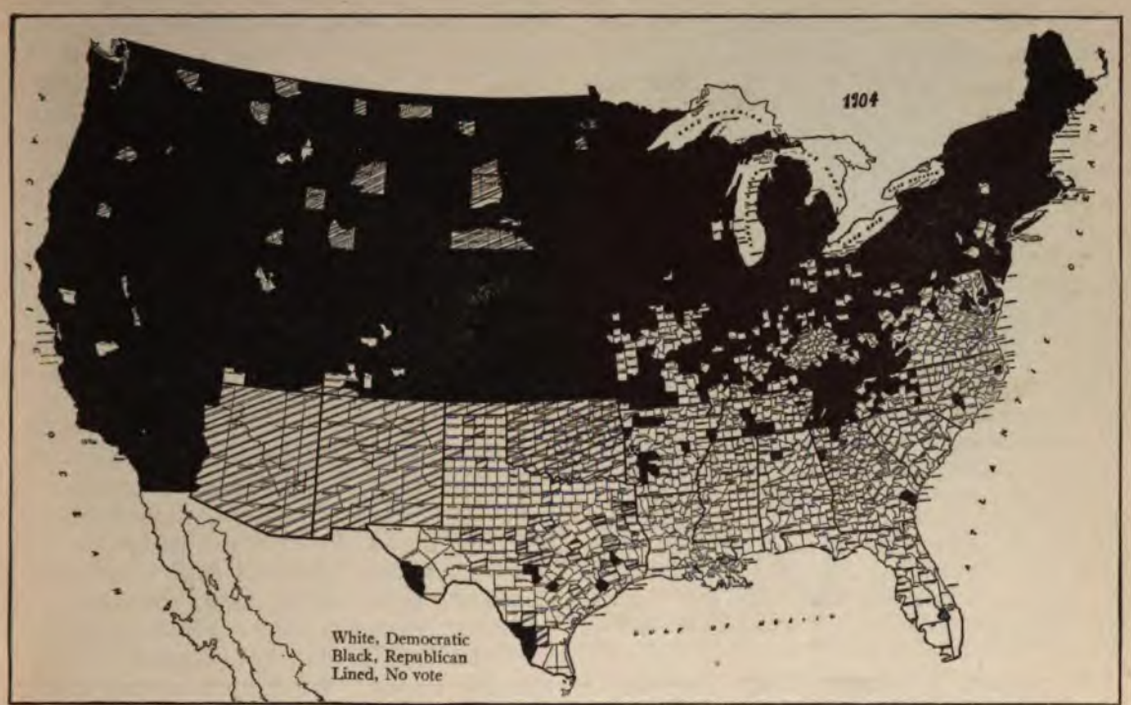
THE PRESIDENTIAL VOTE OF 1896 BY COUNTIES

The first Bryan campaign and the first time in twelve years than the Republican party cast a majority of the popular votes. McKinley's plurality over Bryan was 601,854



THE PRESIDENTIAL VOTE OF 1900 BY COUNTIES

The second Bryan campaign. McKinley's plurality over Bryan was 849,790



From Professor Frederick J. Turner's paper on "Sectionalism in the United States," by the courtesy of the *American Journal of Sociology*

THE PRESIDENTIAL VOTE OF 1904 BY COUNTIES
Roosevelt's plurality over Parker was 2,545,515

three elections when he was a candidate. Tilden received the largest vote cast in 1876, and Garfield in 1880 received over Hancock a plurality of only 7,018 votes. From 1876, therefore, till 1892 the Democratic party cast the largest vote at four of the five Presidential elections and fell short by only 7,000 at the other. It was not till Mr. Bryan came into the field that the party began to lose hopelessly.

For the Republican pluralities since then have been as follows: In 1896, McKinley over Bryan, 601,854 plurality; in 1900 McKinley over Bryan, 849,790 plurality; and in 1904, Roosevelt over Parker, 2,545,515 plurality.

A glance at these political maps will show the persistence of Republican preference in most localities: the black spots remain black year after year. But the gradual encroachment of the Republicans on old Democratic territory is the still more striking lesson that they point out.

THE PROPER STRENGTH OF OUR NAVY

PRESIDENT ROOSEVELT exerted all his influence to induce Congress to provide four new big battleships. The Naval Committee of the House reported in favor of two; and an amendment to add two more, as the President recommended, was lost by a vote of 83 to 199. The Senate also voted for two and not four, but it favors authorizing the building of two a year for a period. By the present programme, therefore, our navy will be increased at a considerably less rapid rate than the President and our naval officers desire. Admiral Dewey has pointed out our necessity henceforth "for having two battle fleets, one in the Atlantic and one in the Pacific, each adequate to cope with any situation that may quickly arise in its own region," and he went on to say, "this does not mean half a fleet in the Atlantic and half a fleet in the Pacific," but a complete fleet in each.

The extreme view — as most persons regard it — was expressed in the House by Mr. Hobson, when he predicted an inevitable conflict between the yellow and the white races. "The war clouds are gathering," he cried. "clouds that will bring a great war between the races of the world; and I see America right here in the climax, placed here by Providence," and he argued that we could prevent such a great clash if we be sufficiently armed and ready when it approaches.

The President, less definitely prophetic and more temperate, pointed out in a special message that "to provide for but one or two battleships a year is to provide that this nation, instead of advancing, shall go backward in naval rank and relative power." The gist of his argument is this —

"It is idle to assume, and from the standpoint of national interest and honor it is mischievous folly for any statesman to assume, that this world has yet reached the stage, or has come within measurable distance of the stage, when a proud nation, jealous of its honor and conscious of its great mission in the world, can he content to rely for peace upon the forbearance of other Powers. It would be equally foolish to rely upon each of them possessing at all times and under all circumstances and provocations an altruistic regard for the right of others. Those who hold this view are blind indeed to all that has gone on before their eyes in the world at large. They are blind to what has happened in China, in Turkey, in the Spanish possessions, in Central and South Africa, during the last dozen years."

An expert judgment about the proper strength of the navy can be given only by men who have made a special study of naval power and of international relations, that is to say, naval officers and public men who have given a long time to the subject. Such expert judgment is worth more than any political or party opinion or than the opinion of any layman.

On the other hand, the opinion of naval officers is under suspicion because fighting and keeping ready to fight is their business. It is suspected that they naturally desire at all times and under all conditions the strongest navy that they can get. Such a suspicion may not be fair to them, but in all countries they encounter it, and especially in our country.

It is hard, therefore, for any fair-minded layman to form a clear opinion. But a broad common sense and a look about the world will cause most large-minded men, who know history, to incline to accept the judgment of the President and of other special students of the subject. There is no imminent danger of war. There is perhaps no probability of war growing out of any international friction that now exists. But there is a situation in the East that will at some time be likely to cause international trouble. Japan has not yet received, and is not likely to receive, the complete freedom for expansion and the full consideration that she will feel the need of. The antagonism between Japan and Russia slumbers, it has not been removed. Each wishes to be a great power on the Pacific. Great changes are taking place in China. That great empire is not likely, as it seemed likely a decade ago, to be divided up among the military and naval powers; and Japan naturally expects to become more and more clearly the dominant power in that part of the world. Here are possible complications enough to cause a war, or to bring a danger of war, within a decade. We cannot give up our responsibilities in the Pacific. More and more, too, our commercial interests and opportunities will develop there. A strong fleet in the Pacific will be more likely, at some crisis, to mean peace than war; and we cannot have a strong fleet in the Pacific without enlarging the navy very considerably.

The fact that stands out most prominently is, as Admiral Dewey says, that hitherto our naval policy has had need to consider only the Atlantic. We now have need to consider also the Pacific. We must have two strong fleets instead of one. This is the price that we must pay for our long coast-line, for the development of the Pacific states, for the growth of our Pacific trade, for the development of our interests and the meeting of our obligations in the Orient. We must become, and for some time at least remain, the second naval power in the world.

THE "PROFESSIONAL" NEGRO IN POLITICS

FOR a long time we had the professional Irishman in American politics, and he was a nuisance. He was a man who demanded a hearing simply because he was an Irishman; and the Irish vote was a bugaboo. Now we have been threatened with the Negro vote and the professional Negro has appeared. We read of the ability of the Negro vote to decide the election in half a dozen northern states; and certain Negro bishops and other purchased professional agitators have tried to frighten the world, especially that part of the world that is friendly to Mr. Taft's nomination.

The excuse that they have used is the President's retirement of the Negro regiment because of the shooting at Brownsville, Tex. Now, whether you think that the President acted wisely or unwisely, you know, if you are a man of honest thought, that the color of the men of the regiment had nothing to do with

his conduct. He would have pursued the same course if they had been white soldiers. The whole effort, therefore, to use the incident in politics has been dishonest; and the Negro "leaders" who have tried to inflame the race feeling of the Negro population for this reason, are mere agitators or mere tools; and the "Negro vote" as a bugaboo in Northern states will have no effect, and it would be a reflection on the intelligence of the Negroes if it did have effect. It the Negro is to count in politics in the North, he must act as a man and not as a Negro — not as a member of a race, but as an American citizen.

THE SWING OF BUSINESS

THE clouds are not all dissipated by any means, but here and there the business world is brightened by sunshine and cheered by the warmth of business activity. Perhaps the most cheerful occurrence of recent months has been the very successful sale of $40,000,000 worth of Pennsylvania Railroad bonds by a great banking house in New York. The bonds yield to their buyers only about 4 per cent., yet when the books were opened for subscriptions there was a wild rush to buy, and the whole issue was oversubscribed many times. A few days later, the Pennsylvania reduced its dividend; but the confidence of the public seems to have been merely enhanced by this sign of conservatism.

In the Stock Exchange, a faulty barometer of prosperity but perhaps as good as we have, the early summer brought promises of sudden recovery. Prices of all stocks jumped upward; great traders who sold stocks in the expectation of collapses went into bankruptcy; railroad presidents at large reported that business was getting back to stable foundations, even though in volume it was far behind last year. So eminent a financier and strategist as Mr. E. H. Harriman did not fear to put in jeopardy several millions of dollars of money belonging to himself and his friends in order to save the Erie from the bankruptcy courts.

These are signs of great promise, and of healthy optimism in high places. In actual count, the signs of present depression seem to overshadow the signs of future recovery. A man who to-day advertises for help of almost any kind will usually have to call the police to keep his doorstep clear during the rush that follows. It is many years since so many men of expert knowledge sought in vain for work at the great centres. Mechanical labor also, particularly of the higher kinds, far outruns the demand except in special industries. The recovery in New England is very slow. The excess labor laid off by the railroads is a problem beyond solution except the solution of time. Unless the conditions allow work to be resumed on construction and reconstruction, the autumn and winter will bring much suffering to these people.

Real estate has not felt the collapse to any great extent, so far as the homes of the average men are concerned. Outside of New York City, however, in the fashionable or semi-fashionable towns of New York and New Jersey, there have been extraordinary collapses. Towns in which members of the Stock Exchange and kindred institutions dwell in large numbers have suffered most severely. Many fine estates seek in vain for new owners at prices far below their original cost.

Mercantile business is slow. All signs point to its continuing slow; but undoubtedly the worst of the storm is over, so far as failures are concerned. Week by week the failure of small firms continues, running perhaps 80 per cent. higher than a year ago; but few failures of big houses are reported.

On the whole, the improvement has been steady, and looks genuine. It would be folly to predict, from the signs to be seen, that any business boom is coming right away. On the other hand, it seems quite conservative to say that if the business men at large keep up their courage and do not withdraw their funds from the arteries of commerce, there should be no further radical disturbance.

"LET US ALONE"

A HEALTHFUL reaction from the excessive legislation of the last two years is now under way. From all over the country resolutions of trade bodies, merchants' associations, manufacturers' guilds are piling up in protest against the continuance of the legislative frenzy that resulted in the placing on the statute books of many states in the South, the Middle West, and the West of laws intended to "regulate" railroads and corporations, but really tending to destroy these useful, if dangerously powerful, servants of the public will.

The protest took definite form and substance in the speech made before a body of St. Louis business men by the chairman of a

great railway, himself undoubtedly the actual leader of the "new idea" in railroad management. He pointed out in phrases beyond cavil the danger, indeed the inevitable disaster, of continued repressive measures. On the other hand, he made it perfectly clear that the abuses of railroad power must cease. On the day after his impartial summing up of the situation, Mr. J. Edward Simmons, president of the so-called National Prosperity Association, started the cry, "Let us alone." From that time to this, every association of business men in the country has been called upon, by telegraph, to lift its voice for the idea. The messages of confidence have found a universal echo throughout the land, from the Chamber of Commerce in New York to the little bands of business men in the villages of Texas.

Probably the legislatures of the various states will next year be instructed to give justice to the corporation rather than to grant the prayers of those who would have rate reductions at any cost. We do not look to see a swing back to the old autocratic, irresponsible railroad tyranny. We do look to see a balance between the interests of the people and the interests of the railroads. Thus in a zigzag way we work toward the solution of that most vexing of all puzzles, the railroad problem.

RICH MEN AND OUR FOREIGN SERVICE

THE little social and diplomatic flurry caused by Dr. David J. Hill's promotion as our Ambassador at Berlin had a wholesome effect. The rumored objection to Dr. Hill, who is an accomplished member of our diplomatic corps, turned out to be only the regret of official society at the German capital that a man without a liberal fortune should succeed a rich ambassador. The diplomatic circle in Berlin, regarding chiefly the social functions of an ambassador, might naturally prefer a rich man. We have rich men a-plenty. Some of them are in our diplomatic service. They entertain lavishly. They keep our countrymen and especially our countrywomen of fashion in conspicuous positions at the European capitals where they live, and they give a certain splendor to American life.

But Motley, Bancroft, Bayard, Lowell, Phelps, White — it is a long list of eminent scholars and gentlemen whom we have sent abroad — were not men of fortune; and their influence was of a better and more elevating kind than the influence of ministers and ambassadors of wealth. We have had rich men who have done notable service; but we cannot permit the idea to get abroad that only rich men are eligible to such posts or that we regard riches of any value in comparison with the accomplishments and character of men as our representatives. Mr. Perkins, of New York, expressed the universal American sentiment when he said in Congress:

> "It is quite evident, that if the recognized function of American ambassadors is to entertain with excessive liberality, and therein their usefulness is thought to consist, the sooner we are done with ambassadors the better. Hospitality has its charms and dining and wining is a creditable amusement, but after all it is not for such purposes that we sustain a diplomatic corps."

The incident served a good purpose in making it plain that, money-mad as we seem in trade and in the professions that serve our trade-life most intimately and in the social world that lives nearest to our trade-life — however money-mad we may be in these sections and activities of American society, we yet keep proper standards to measure men by in higher work.

A bill was introduced during this session of Congress to appropriate $5,000,000 for the purchase of embassies in the chief European capitals, but it was not passed. Yet we must have such homes for our ambassadors and then the temptations to appoint men to these positions because they are rich will disappear.

RICH MEN NOW AND IN THE FUTURE

MAJOR HENRY L. HIGGINSON, of Boston, recently wrote to the *Outlook* a letter of friendly protest against "ringing the changes on the moneyed people's evil thoughts and acts. Let us not forget," he said, "that one-sided talk about money and labor tends to separate us into classes — the one thing against which we must struggle vigorously — not forgetting that it is much easier to frighten people about their money than about anything else." Major Higginson, himself a man of fortune, is accurately described by the *Outlook* as one "whose beneficent spirit is known wherever in the United States there is admiration for music, art, or education."

This friendly controversy between a good man of wealth and a good journal of — what

shall one say, of Christian democracy?— leads, as all such friendly controversies lead, only to definitions of what are good uses of wealth. But it calls to mind also an interesting change that is taking place in the popular cry; for every day and every year has its popular cry.

For a year or two the fashion has been to say (using Major Higginson's own words), "I have no prejudices, but damn a rich man." This has gone on the very while most men in the United States have been doing their best to become rich men. This popular cry has not sunk very deep, perhaps, for it is now changing. We are not likely to hear for a year or two quite so much promiscuous condemnation of rich men.

In fact, if we look deeper into the American mind than a judgment based on mere popular cries, we shall find two conflicting conclusions. On one side, men desire wealth — most men surely; but most men desire it for other reasons than its mere possession. They desire the power that wealth gives, but most of all the satisfaction of success. For wealth is a proof of success in the popular mind. On the other hand, the mere possession of wealth does not confer distinction. It often proves, in fact, a disadvantage to a man, by putting a barrier between him and most of his fellows. It has not yet come to pass that in the American judgment of men mere wealth counts for much except as a measure of practical success in the struggle.

And, if we look forward calmly, we can find many signs which point to a decreasing rather than increasing desire for riches for the sake of personal luxury; for at least many of the old forms of personal indulgence are likely to go out of fashion. Luxuries of the table are much less thought of by the rich — except, perhaps, by the very newly rich in their first intoxication of wealth — than they ever were in any preceding time; for men now know more about their bellies than men knew in the good old days when conviviality forgave and even demanded drunkenness. Hear Dr. Metchnikoff in his volume on "The Prolongation of Life":

> "The progress of human knowledge will inevitably bring about a great leveling of human fortunes. Intellectual culture will lead men to give up many things that are superfluous or even harmful and that are still thought indispensable by most people. The conceptions that the greatest good fortune consists in the complete evolution of the normal cycle of human life [attaining an unimpaired old age] and that this goal can be reached most easily by plain and sober habits, will convince men of the folly of much of the luxury that now shortens human existence. . . . The rich will choose a simpler mode of life and the poor will be able to live better. Sociology, a new-born science, must learn of biology, her older sister."

The only rational and civilized view of wealth is as an instrument of healthful living and of social progress, and social progress must proceed on scientific lines. And the only rational and civilized judgment to make of rich men is — as we make judgment of poor men — of their character and of the uses that they make of their opportunities for the public welfare. For wealth is only one form of opportunity. In spite of the popular cries of last year or this year or of next year, the permanent and serious judgment of the people of the United States is, in the long run, a judgment thus formed. And less and less, as we reach a scientific method of life and of thought, will men need or desire great riches; and less and less will sensible men seek them.

"POSTERITY" NOW HAS THE FLOOR

MR. THOMAS F. RYAN, during a recent explanation of the intricate financial crimes and mismanagement of the traction system of New York — a mess of swindles and corruption that, will, perhaps, never be made plain to the public — declared incidentally that 95 per cent. of practically all the railroad stocks issued in the United States up to 1885 as water. When a railroad was to be built or when one was reorganized, the sale of bonds brought all the money that was used, and the stock was issued for no cash equivalent but as pay or plunder of the promoters.

This was the rule; and sometimes such a proceeding was right, but in most cases it was a fraud. In any given case when the promoters of a company's old bonds and divided the stock among themselves as payment for their services, if the whole plan and transaction were made known to the buyers of the bonds, and if the issues of both stock and bonds were not excessive for the real value and the earning capacity of the road, no harm was done. In such a case the stockholders took the risk. In such a case, too, everybody who invested had full knowledge, if the whole truth about

the enterprise were frankly made known. The mere fact that some of the stock was "water" is not criminal, provided no payment was made with such stock for services that were never rendered or for risks that were never legitimately taken. Fraud comes in with concealment and with exaggerated issues of stock. All "water" is not fraud.

But what most of the railroad builders of that unregulated era did was to make such issues of "free" stock as to anticipate the future increase of the road's value. They left no chance — or too small a chance — for the easy issue of future stock or bonds to keep the properties in order or to improve or extend them. They loaded the roads down and made their legitimate and normal development difficult in the future.

Since that time most of the mileage of the country has been in receivers' hands. Much of the old stock and even many of the old bonds had to be scaled down in the process of reorganization. Speaking generally, therefore, that system was essentially dishonest in spite of some cases where it was honestly used.

The system was recalled by Mr. Ryan to make the "water" in the New York traction securities seem moderate by comparison; and it is recalled by us as a reminder of the change that has taken place in the public attitude to the subject. The system has gone out of general use. We have come now to a state of public feeling that is reflected in the President's recommendation to Congress of an amendment to the Interstate Commerce law which shall give the Commission power to control future issues of interstate railroad bonds and stocks. This recommendation may not at an early time become a law; but the strong drift of public sentiment is in that direction.

Although all "water" in stocks is not fraudulent, and although the value of the railroad properties in the country every decade approaches nearer to par of their securities, including even the inflated securities, this approach is caused by the natural increase in value of all useful property and does not justify the old method; for the public has all these years had to pay the income on these inflated issues of stock. No similar era of exaggerated issues will ever again come in the United States, for the public conscience has waked up. Pioneers are entitled to large rewards, but too large a mortgage on the future will be resented by posterity; and "posterity" now has the floor.

ABOUT SAVING HALF A DOZEN STATES

THE bills for the purchase of the Appalachian and White Mountain forests by the National Government struck this snag — the danger that the purchase of any lands by the National Government for such a purpose within a state would be unconstitutional. Technically — if the project be regarded merely as a purchase of land — this danger may be real. But that is a very narrow and incomplete view. One of the main reasons for the control of these mountain regions by the Federal Government, especially of the lower Appalachian region, is to regulate the rivers and to save the lowlands. These purposes are as important as the saving of the forests. The Federal Government clearly has power to preserve and to improve the navigability of rivers— especially of rivers that flow through more than one state — most of the Appalachian rivers do.

The problem is to save one of the most valuable and attractive parts of the continent — literally to save it; for it is going to waste with a rapidity that is fairly astounding. No one state government can do it, if it would; for the problem is an interstate problem. It would be absurd, therefore, if the Federal Government should not be able to do such a task, which is the most important task that can be done for the preservation and the development of half a dozen as valuable states, in potential wealth, as there are in the Union.

SAN FRANCISCO TWO YEARS AFTER

NO people ever showed a greater energy or more pride in themselves or stronger belief in their future than the people of San Francisco. It has been only two years since the city was practically destroyed. In spite of labor wars the business section is, with the exception of a bare spot here and there, built up, and in many places better than it was built before. In 1905 San Francisco had a population of 475,000. In 1907 the population had risen to 479,655 and the neighboring cities of Oakland and Berkeley had in the meantime doubled in population. The bank clearings in 1907 were greater than ever before, and for the first time exceeded 2 billion dollars. Even the savings bank deposits were but a trifle less than in the heyday of the old city's prosperity.

The city, therefore, has been physically restored and wonderfully improved, and commercially it has grown in spite of all discouragements. Politically, too, it has substituted a clean government for one hopelessly corrupt. Physical cleanliness also has been made possible, and the plague which followed in the wake of the other disasters has been stamped out.

All the while the people have maintained their characteristic buoyant, half humorous attitude toward their afflictions. Before the calamities they boasted that theirs was the gayest city on the continent. During the trying times after the earthquake they placed grandiloquent signs on the shacks in which they did business and laughed at their misfortunes. Now at the end of two years of rebuilding, with a financial panic hardly passed, they raised $60,000 for a great entertainment to the sailors of the fleet, and half a million San Franciscans and people from the surrounding cities took a day off to watch the great battle fleet come in the Golden Gate. Nobody is readier for "a fight or a frolic" than they are.

But in some ways the spirit of the people is changed. The old San Francisco was morally a glorified mining town. It had not solved the more complicated social problems which attended its business success. As large and as virile as it was, it was morally heedless and young. Its misfortunes have not taken away its love of fun, its buoyancy or its braggadocio, but they have given it a clearer vision and a different point of view. A Schmitz and Rueff régime may come again, but not in the same form nor at an early time, nor is dishonesty again likely to permeate a large part of the population as the dishonesty of that period of corruption did. San Francisco now realizes that it is necessary to be decent and honest.

With its buildings restored and its conscience awakened, the city is ready to continue more rationally the sensational progress which it had made before the fire. It is the great harbor on the Pacific south of Puget Sound, the terminus of three transcontinental railroads and to be the terminus of another now in process of construction. It is the natural outlet for the riches of the two great valleys, the Sacramento and the San Joaquin; and these, even without other resources, would make a great city overlooking the Golden Gate.

TEN YEARS AFTER THE BATTLE OF MANILA

IT HAS been just a decade since this generation for the first time heard the roll of the war-drum and since our soldiers for the first time put on the khaki — the emblem of tropical service. The Spanish war led us into an entirely new field of activity and marked the beginning of a new epoch.

Now that ten years have passed since Admiral Dewey did his splendid work in Manila Bay, it is pleasing to look upon the results of our efforts at governing an alien people. First of all, is the deep satisfaction in knowing that no critic can point to any of our possessions — Porto Rico, Hawaii, or the Philippines — and say that we have exploited it for our personal gain. Indeed, the strongest argument that our policy has incurred at home is that we are "not getting anything out of it." But the native inhabitants of these possessions are getting a great deal out of it — more, perhaps, than the inhabitants of any other dependencies in the world. This is true, let us frankly admit, less because we show any especial philanthropic spirit, than because that is the American way of playing the game. We are getting our fun out of it by doing a piece of work of which we are proud.

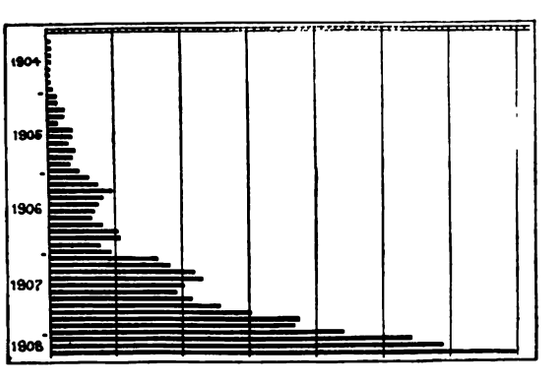
This is what we have done — as anybody may see on the ground for himself: We promptly established a military government to preserve order until a civil government could be framed, and this military rule was never irksome except to those who openly resisted its power. The civil régime that followed it was framed specifically for the welfare of the islands, and the officials placed in charge were not appointed in recognition of political services. The building of good roads, the engineering work of railroads and bridges, the establishing of steamship connections, the organization of a trustworthy and efficient postal service, the reform of municipal government, the regulation of abuses that had existed for centuries — these are only a few of the first activities that were set in motion. But the most notable and the most distinctive thing that we did in the islands was to lay out a practical scheme for the universal education of the children and to furnish the means and the men and women for putting it promptly into effect. Other colonizing nations have been content with the higher education of a few, but the policy of the United States has been to give a common-school education to

every child within reach, and higher education to those who were ready for it. The wisdom of this policy will undoubtedly be universally recognized within another decade, when its results will be apparent in the first generation reared under the American régime.

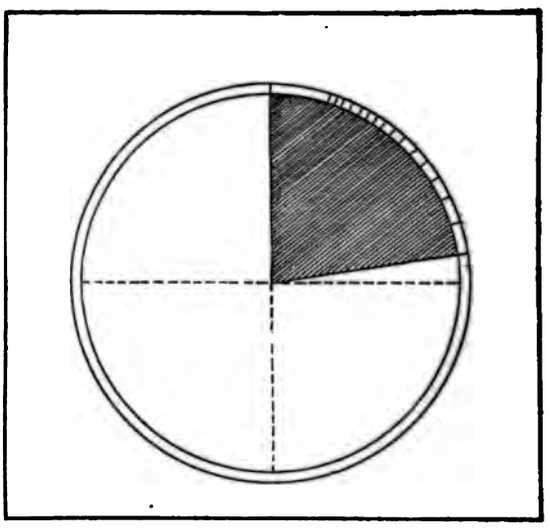
That serious complications and embarrassments await us down the future by reason of the acquisition of these territories, all recognize; but we shall probably find a way to meet them when they arise. The men who have these tasks in hand can be trusted to foresee them. Just now it is sufficient to look with gratitude upon the work of our hands, and take courage from the fact that we have had no trouble in resisting the first temptation to enrich ourselves at the expense of our possessions. After ten years, our hands are as clean as our intentions were when we loosed the dogs of war.

RAPID WORK ON THE CANAL

THE Big Ditch is being dug. There are fewer newspaper correspondents solving engineering problems, but a great deal more dirt is flying. We hear more of shovels than of men. Colonel Goethals's name is absent from the newspapers, but his work is conspicuously present in the diagrams recently prepared for the official report. They tell a most convincing story of progress. The amount of earth excavated in March, for instance, was more than three times that excavated in March of last year and about seven times as much as in March, 1906. The explanation is given that part of the increase is due to the use of dredges, but the public concerns itself very little with methods. The pleasing fact is that the ditch is being dug at a good rate, as the accompanying diagram of the work month by month makes clear.



THE RELATIVE RAPIDITY OF EXCAVATION
Month by month from May, 1904, until April, 1908



ONE-FOURTH OF THE CANAL FINISHED
The circle represents the total amount of earth to be excavated. The shaded portion shows the amount excavated up to April 1, 1908

The circular diagram shows that about one-fourth of the total amount of excavation has already been accomplished. The significance of this, according to the engineers, is that the digging will probably have to wait for the completion of the locks and dams, whereas the opposite situation was expected. If the army engineers succeed in finishing the canal in good time they will earn the thanks of the nation and we shall forget the controversial experiments with civilian engineers.

DR. HARVEY W. WILEY, GOVERNMENT CHEMIST

A LITTLE while ago, a company of chemists and physicians and other friends of Dr. Harvey W. Wiley celebrated his twenty-fifth year of public service by a dinner to him; and three interesting facts were emphasized in the speeches and messages of congratulation that came from every part of the country:

(1) The growth in volume and in importance of the Bureau of Chemistry of the Department of Agriculture, of which Dr. Wiley is the head. When he assumed charge of it the force consisted of four assistants and a dishwasher, who worked with meagre apparatus in the cellar of the Agricultural Department building. Now there are 350 people in his bureau, 200 of them chemists who work in well equipped laboratories. About $800,000 a year is spent now instead of the $15,000 that made up the budget twenty-five years ago.

(2) The incalculable service that this Bureau has rendered the American people under his administration. It is but lately that the whole public has become aware of its service — that is, since the enactment of the national pure-food and drug law. But this law did not come suddenly. It was the result of a decade of work. And its administration is developing into one of the most important services to the people that any government can do. This result has been made easier — has been made possible in this generation — because of the inflexible character of this one man.

(3) The large part played in our life by the scientific officers of the Government, by reason of the security of their tenure. We think of the Government too much as the work of the changing public men of whom we hear most — of Presidents, and secretaries, and Senators and members of the House, most of whose terms of office end by the time they learn their duties well. These come and go. But the scientific work goes on, unchanged by elections; and we are coming to owe as much to these stable and modest servants of the public as we owe to the men whom we elect and talk most about. Under every administration the work of keeping our food pure, of reclaiming our deserts, of saving our soil and forests and our fuel supply, and the work of corresponding value in other great departments of applied science goes on; and this is government in the best sense.

GOVERNMENT BY SCIENCE

IN FACT, government in the future will concern itself more and more with science and less and less with such general problems and policies as we have hitherto associated with public life. More and more as we learn something definite about human society and social growth and the real foundations of national greatness, we shall employ the cooperative agencies of science. And government will become more and more such a coöperative agency. From saving cattle and swine from fatal diseases, peach trees from deadly parasites, grain from its enemies, and cotton from the boll-weevil, to keeping contagious diseases from our shores and from developing within our borders, and to forcing food manufacturers to tell the truth about their wares and to using coal economically and preserving the supply — all around our life, individual and collective, the most important services that the future will demand of governments will be scientific services.

This is what Mr. Ray Lankester had in mind when he wrote:

"Democracy will demand that those who expend the resources of the community, and as government officials undertake the organization of the national defense and other great public services for the common good, shall put into practice the power of nature-control which has been gained by mankind, and shall exert every sinew to obtain more. To effect this, the democracy will demand that those who carry on public affairs shall not be persons solely acquainted with the elegant fancies and stories of past ages, but shall be trained in the acquisition of natural knowledge and keenly active in the skilful application of nature-control to the development of the well-being of the community."

WILL PROHIBITION FAIL AGAIN?

IN THE publications of the "liquor interests," the failures of prohibition laws have been catalogued and emphasized, to show that the list of past failures is a long one. Between 1846 and 1855 fourteen states adopted prohibition — Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Ohio, Indiana, Michigan, Illinois, Wisconsin, Iowa (in part, and wholly in 1884), and Nebraska. Only one of these — Maine — now has a prohibition law. In most of the other states it was repealed after a few years' trial, and in several (New York and Indiana among them) it was declared unconstitutional.

A later wave of prohibition sentiment caused the enactment of such a law (or amendment to the constitution) in Kansas and the two Dakotas; and South Dakota repealed the amendment in 1896 after a trial of four years. Of the seventeen states, therefore, that tried prohibition up to last year, only three have kept the faith — Maine, Kansas, and North Dakota; and in several states more trials of the experiment than one were made.

A superficial study of these facts does not lead to an encouraging conclusion about the prohibition experiment that the Southern states are now making. But a superficial study may not lead to a right conclusion. Times and manners and public sentiment have greatly changed since the two preceding waves of prohibition swept over the land and left so

many statutes and constitutional amendments. Drunkenness has decreased, business life has become far less tolerant of the drink habit, and the old doctrine of the invasion by law of men's personal privileges has lost its force, in this application at least. The Supreme Court of the United States has declared a prohibitory law sound in principle. Most of all, in many communities public sentiment favors it. This is the test of all such laws. They will be enforced where public opinion approves of enforcing them. And, in spite of the breakdown of so many state laws and amendments, the area of prohibition has constantly become greater by the enforcement of local laws. In many communities, too, where prohibition has failed, high-license laws that approximate prohibiting have been successful.

For these reasons the present experiment at absolute or approximate prohibition in the South has a far better chance of success than a casual study of the previous failures of state prohibition in New England and the West might lead one to think. It is not a mere repetition, under parallel conditions, of these previous experiments.

THE STORY OF A RURAL REVOLUTIONIST

IT IS hard to "bring home" to the readers of printed pages the extent and the full meaning of the work that is going on in the United States to build up rural life — to make farming pay; for this is a kind of work that a man must see to understand it, to measure its value, and to come to know what it will mean in the near future to the people. Here, for example, is a little story from life:

The best small farmer in his neighborhood sent his only son to an agricultural college. When the boy had finished his studies he had a plan to go away and to begin life for himself, but his father was eager to keep him at home. He would stay only if his father would give him complete control of the farm. Since the old man was himself the best farmer in his part of the world, he yielded to the boy's wish with reluctance, but he yielded.

"Now what do you suppose John did?" he asked, as he told the story. "He hitched all three of the mules to one plow. I had never done that, but I pretty soon saw that he was right. Then he spent a lot of time and care in selecting seeds. I had never done that so thoroughly, but I soon saw that he was right"; and so on, item after item.

The result was that, although the farm had for years made larger yields than any other in the neighborhood, the yield the first year of the young man's management was 30 per cent. larger than it had ever been before; and the second year, 50 per cent. larger. Within a few years the methods of farming in the neighborhood had become so much better that the farmers receive now $50,000 more a year, in cash, than they received before John took his father's farm in hand.

Similar changes are taking place in many parts of the country. The difference is the difference between a life of hard struggle and a life of independence, between good roads and bad, between good schools and bad, between a cheerful life and a sad existence, between hard lives for women and comfortable and refined lives, the difference between stolidity and a glad intellectual existence.

A REVOLUTION IN A SHOP ALSO

YOU may hear parallel experiences almost every day in other kinds of work. A certain manufacturer, for instance, bought his material cheap, sold his product at a price that ought to have brought a satisfactory profit, employed good workmen, and had a good system of keeping accounts; and yet, to his dismay, the factory yielded hardly any profit.

Now there are ways by which a man may receive instruction in conducting a factory as well as in conducting a farm; and this man sought such instruction. After a long study of his problem he discovered that one great machine, through which the whole product of his factory passed at one stage of the processes, could not do in good time all the work that was required of it. The factory had outgrown the capacity of this machine but it had outgrown it so gradually that nobody had become aware of the change. The delay thus caused had come at last to cause sloth throughout the shop — both in handling the product before it reached this machine and afterward. Every other machine and every man worked at too slow a gait because of this one place of delay.

To make this discovery was by no means so easy as it is to tell the story. But, after it was made, a second machine was put in, work throughout the shop went on at a much quickened pace, there was new life in the place, and a vanishing profit became a substantial one.

The moral of these stories, the like of which everybody constantly hears, is that the area of what we call "education" has almost suddenly become enormously broadened. It was once the almost sole business of education to teach children certain routine things out of books. Then very gradually children were taught some things that were not in books. Then there were, of course, schools for a few of the professions — the preachers, the physicians, the lawyers, and so on. It was not until our own day that men came to regard organized instruction as a desirable and possible thing for adults — organized instruction in a man's own business; and we have at last come to a conception of "education" which includes the idea of teaching a man his own business on his own farm or in his own office or in his own shop. We no longer think of education as a thing detached from a man's vocation, nor as a thing good only for children.

Perhaps this is as important a social discovery as we have made for many generations. But, like other important social discoveries, or adaptations, or steps in evolution, it is now so obvious that we can easily forget its importance. Perhaps we may even become impatient with a page given to emphasizing it, so commonplace does it seem as soon as it has once been done. But the important question for every man to ask himself is, whether he is neglecting his own education in his own continual business or profession.

CHINA VERSUS JAPAN

NOT long ago a Japanese steamer called the *Tatsu-Maru* was seized by Chinese officials on the charge that the vessel was attempting to smuggle arms and ammunition into the hands of Chinese revolutionists. There was no mistake about the cargo and apparently none about the intent, but the Japanese Government claimed that the steamer had been overhauled in Portuguese and not in Chinese waters. Tokyo forced Peking to apologize, to pay indemnity, to salute the Japanese flag when it was rehoisted over the *Tatsu-Maru*, and to punish the Chinese customs officials who captured the vessel.

South China, where the arms had been seized, had a strong dislike for such humiliation, its attitude to the Peking Government being about the same as that of California to Washington, or the attitude of Vancouver to Ottawa during the Japanese troubles on the coast. And so the south of China blandly smiled when Tokyo announced that the incident had been closed. Closed it was, but a queue was left sticking from under it.

The great city of Canton is in this region and its commercial interests are both vast and far-reaching. There, every form of trade is controlled by a guild, more rigidly regulated than any branch of American skilled labor by its union. The heads of the most important guilds got together and then came a decree that all Japanese products should be boycotted until the damage inflicted should amount to $10,000 for every $1 of indemnity that the Japanese had exacted. The decree went into immediate effect. Dealers in Japanese goods closed down; orders for Japanese products were countermanded; cable messages went round the world to caution shippers not to forward goods in Japanese vessels. The great port of Shanghai and the city of Hankow, the Chicago of China, quickly followed suit. Results were prompt and convincing. The next big Japanese steamer trying to pick up a cargo in China for our Pacific Coast got no Chinese freight and only twenty-five passengers.

Japan's reply to this protest was significant. Up and down the streets of Canton suddenly swarmed Japanese peddlers, flaunting their wares in the face of the unfriendly Cantonese — just at the time when no sane peddler would expect to sell a *yen's* worth of goods. What was its meaning? Canton interpreted it to mean that Japan was trying to provoke the Chinese to do violence to Japanese citizens and property, and thereby furnish a pretext for invading South China by force of arms. This probable intention, together with the unquestionable fact that Japan is selling arms to Chinese revolutionists, gave color to the suspicion that China was once more in peril. The fact that England's hands are tied by treaty would make the present an opportune time for executing any sinister design against the Celestial empire.

If such an unfortunate issue should develop, the late Secretary Hay's ideas about an open door in China will be remembered at Washington. Wise men in Tokyo and solemn-visaged mandarins in Peking have observed that sixteen American battleships arrived on the Pacific Coast in excellent condition, and that they will return to the Atlantic Coast by way of the Far East. That observation may

have some bearing on the world's peace. It would be a strange thing, indeed, if it did not strengthen our commercial relations with China, for a fleet of fighting ships is "a very present help in trouble."

II.

The *Tatsu-Maru* incident, taken in connection with a number of other happenings, is likely, if Japan be not very careful, to put her on the defensive in the court of international morals. For such events suggest cunning rather than sagacity. The nation that aspires to rank as a world-power must secure in this age of the world the moral support of other nations. The Japanese, with his Prince Albert coat buttoned about him and his treaty with England under his arm, is in danger of fancying that the gods have destined him to be the master of the Eastern seas and all the shores in sight.

Japan emerged from the Russian war with the prestige of glorious victory, and with only the natural hate of the Slav as a handicap. Instead of strengthening the favorable relations with the rest of the world, she has somewhat strained those relations by acts which would be already forgotten but for their number. Cumulatively they have an effect. First, Japan pressed the San Francisco school incident too far. On the heels of that, she allowed her relations with Canada to become so strained that not even the alliance with England has more than a technical force in the Dominion. She excited criticism by her method of absorbing Korea. Again in Manchuria, doubt — whether warranted or not — has arisen about her intention to abide by the terms of a sworn treaty. Finally, she has aroused China to the point of open antagonism.

Probably the Japanese idea is that there is no danger in arousing suspicion in a large part of the world, so long as she has a strong treaty with a great sea-power like England. But there is one voice more powerful in London than the voice even of the Government, and that voice comes from the trader. Great Britain will probably not allow the open door of China to be closed by the Japanese, treaty or no treaty. The voice of commercial interest is already being heard in Downing Street, for the heads of great British houses in China have come out with open protests and warnings. The statesmen of England are deliberately accused of a diplomatic blunder of serious import to British trade, and the Japanese are accused of worse than blunders.

As the case now stands, Japan has the enmity of the Russians and the Koreans, the open antagonism of the Chinese, the resentment of the Canadians, the suspicions of some of the people of the United States, and the growing dissatisfaction of the British public. This is a formidable array for a young nation to face, with a tremendous debt and a people taxed to an incredible degree of harshness.

Meanwhile, Russia and China have apparently discovered many lovable traits in each other and have buried their old enmity. China will probably also discover that the United States is a good neighbor, in spite of our exclusion fence. In the final summing up, all the world will perhaps learn that something more than cleverness and ingenuity and adaptability are required before a nation can rank among the great powers

"THE MOST DISTINGUISHED AMERICAN WOMAN"

MRS. JULIA WARD HOWE, our "most distinguished woman and Boston's foremost personality" celebrated her eighty-ninth birthday on May 27th; hale and active in all the many kinds of work that she has interested herself in. During the last year she was daily at her desk with her pen, busy with a poem, or a letter, or an address, for literature, for an old friendship, or for a philanthropy. Hardly a week passed but she was heard in pulpit or on open platform, lifting her measured, musical voice for some unselfish purpose or presiding over some public organization. She has been called the "queen of clubs," because so many associations owe their existence to her active efforts. Among these is the New England Woman's Club, the pioneer of its kind in the country, of which she still retains her active presidency. She is president, too, of the Boston Authors' Club, over which she still presides. She has never ceased to work untiringly for peace and for woman suffrage. The author of "The Battle Hymn of the Republic" retains in this beautiful old age her brilliant intellectual powers, as she showed by the verses which she wrote last fall for the Whittier Centenary, and which she read at the town of Amesbury.

In her pleasant Beacon Street home in Boston, where she has welcomed so many famous

persons, she received her friends on Thursday afternoons throughout last winter. She speaks French, Italian, or Greek if necessary, to the distinguished foreigners who visit her, and her quick wit and humor never desert her. She keeps in good use her extraordinary gift of repartee, as when, for instance, she recently received a card on which was written:

"Greetings to Boston's greatest trinity Howe, Higginson, and Hale."

With a twinkle in her eyes (she does not use glasses), she exclaimed:

"They can't say that we drop our H's in Boston."

Dr. Edward Everett Hale, now in his eighty-sixth year, and Colonel Thomas Wentworth Higginson are her life-long friends.

In summer, Mrs. Howe goes to her Newport home, "Oak Glen," which is about five miles from the centre of that fashionable resort, and here, as in Beacon Street, she is guarded by various members of her family. Her children and her grandchildren visit her by turns and aid in receiving the many friends and admirers who visit her.

The marvelous popularity of "The Battle Hymn," which has been called the "Marseillaise of the unemotional Yankee," somewhat overshadows her other writings and there is a constant demand for her to recite it; and she is good natured enough often to do so. Her impressive recitation of the poem remains a delightful memory to all who have heard it.

If you were to ask Mrs. Howe which of all her social and philanthropic interests she cherishes most, she would probably say her interest in individuals. This trait accounts for her close friendship with many famous people. It may be amusing to recall a little episode which took place when Edwin Booth was first making a name for himself. Mrs. Howe, who was one of the early admirers of his genius, was anxious to have her friend, Charles Sumner, make his acquaintance, and she invited him to meet Booth at her house, assuring him that "he would find the actor a most interesting person."

"The truth is, I have got beyond taking an interest in individuals," the Senator responded.

Mrs. Howe did not then make any reply, but she wrote in her diary: "Charles Sumner has got beyond taking an interest in individuals. God Almighty has not got so far." When Mr. Sumner next came to visit her, she playfully showed him what she had written, and he begged her to strike it out.

DR. ROBERT KOCH

DR. ROBERT KOCH, the great German bacteriologist, who lately made a quiet visit to the United States, has done more to advance bacteriology than any other man, and he is yet only sixty-four years old. He began work, after a brilliant academic career, in the early seventies, when bacteriology was just beginning to find itself. He began to practice medicine as a quiet country doctor, in Wollstein. During the interrupted hours of four years, he worked out the puzzle of the anthrax bacillus, demonstrating that it existed both in rod and spore forms. After he laid his evidence before Dr. Cohen, Dr. Cohnheim, and other leaders, Dr. Cohnheim, a great name in laboratory annals, said to his assistants: "Go to Koch; this man has made a grand discovery."

Dr. Koch early found the implements of inspection in bacteriology insufficient to permit further advance; and he did much to popularize the Abbe condenser and oil immersion lens, which greatly added to the powers of the microscope; and to bring to use many aniline dyes in staining bacteria. He is chiefly responsible for our views on ptomaine forms of poisoning; for the proof that infectious diseases following wounds are due to parasites, more accurately to bacterial infection; for the discovery and much valuable information regarding the tubercle bacillus; and for the relation of the coma bacillus to cholera.

The announcement by Dr. Koch at the meeting of the International Medical Congress, at Berlin in 1890, that he had discovered a remedy which rendered animals immune to tuberculosis, caused one of the greatest sensations throughout the world in the whole history of medicine. That the failure of his tuberculin did not utterly discredit him, but even failed to displace him from the rank of foremost bacteriologist of the world, is further testimony to his previous achievements.

His most recent work has been the study of the sleeping sickness in Africa. It was not he who discovered the cause of this disease—the trypanosomes and transmission by the tsetse-fly, which were discovered by Bruce and other English investigators, but his work has been most helpful and has fully justified the Government of Germany in sending him to Africa.

The recognition which Dr. Koch has received from the German Government, in facilitating his usefulness, is as instructive to other

tions as it is pleasing to lovers of mankind. He was appointed first Professor of Hygiene and Bacteriology in the Berlin University in 1875, and Director of the Hygienic Institute. There he was sought by physicians from all parts of the world, but fortunately he was not hindered by being compelled to spend his valuable time in teaching, which less gifted assistants could do as well. He has received the $40,000 Noble Prize — deserving it on half a dozen "counts," — and has been awarded $25,000 by the German Government.

Already his work has saved many millions of dollars to mankind by his discoveries in bacteriology. He is a steady, careful, logical, inventive, and thorough investigator; and by no means the least of his achievements is the influence of these characteristics on all students in this most difficult field of science. And he is as good an example as any man living—one of the very best examples in fact—of the new recognition and honor and help which modern governments and modern society are coming at last to give great men of science in their life-times.

ARE MALE TEACHERS MOLLYCODDLES?

DR. G. STANLEY HALL, President of Clark University, proved in the last number of this magazine that much of our school work is ineffective and soft, especially for the training of boys, because there are too few male teachers, and his argument seems convincing. Thereupon the complaint comes from many quarters that teaching is not an attractive profession to strong men. For instance, Mr. Bardeen in the *Educational Review*, noting that the number of male teachers in the United States has decreased 24 per cent. in seven years, gives four reasons for such a decrease: (1) that the teacher is too much at the mercy of boards of education and such bodies; (2) that teaching is "looked down upon in the community"; (3) that "teaching usually belittles a man" because "his daily dealing is with petty things"; and (4) that teaching "tends to bad manners, and bright young men who see this hesitate to be classed with teachers." He maintains that these causes tend to keep vigorous men out of the profession. "It is not a matter of wages. Professionally fitted men teachers," says this writer, "get a higher average salary than the average incomes of lawyers, physicians, clergymen, and business men in their communities."

If this statement of the status of the profession be true — that good male teachers are as well paid as men in other professions but that they are denied freedom by school boards, are looked down upon, do belittling work, and contract bad manners — then the only conclusion that is warranted is that such men are mere mollycoddles and soft-pated academicians, and not real men at all, and ought not to be in so noble a profession. For in every kind of work men receive such consideration from their official superiors and associates and have such standing in the community as their strength of character commands; work is belittling in proportion as it is done in a little way and with a narrow spirit; and men's manners depend on men themselves rather than on their professions. Weak men ought not to enter this noblest of all callings; and men of whom these things are true ought not to be in the profession at all.

ALL ONE'S EGGS IN ONE BASKET

(The Regular Monthly Financial Article)

THE following letter was received by THE WORLD'S WORK on March 21st, from a man whose home is several thousand miles from New York:

"*Gentlemen:* Five years ago, I invested $75,000 in the Metropolitan Street Railway Company's stock, of New York City. It declined steadily. About two years ago a New York trust company asked all such stockholders to exchange their stock for Interborough-Metropolitan Company stock. I did so, and now I hold more than 500 shares of Interborough-Metropolitan preferred, which also has declined steadily, until my investment has shrunken in volume to about $11,000.

"The great decline has almost ruined me, and with the stoppage of dividends has left me with

absolutely no income; for all my money is tied up in this stock. I bought it again and again in a declining market, hoping to make a lower average when it went up, being unconscious of the 'high finance' methods of the management.

"I have worried over my unfortunate investment until I am a sick man. Will you kindly look at my case, and see what is favorable and what is unfavorable, strike a balance, and tell me what to do?"

This letter has been answered by mail. It is printed here only to point a moral, perhaps one of the most important morals of the whole investment business.

The moral is: never, under any circumstances, allow yourself to be induced to put all your eggs in one basket. No matter how enthusiastic you may be; no matter how alluring may be the literature that is sent to you by interested parties; no matter how golden may appear the promise of the future; no matter how absolute may appear the security behind the investment — in spite of any of these inducements or of them all and many more that might be added, never allow yourself to be caught with your fortune, your trust funds, even your savings in any considerable amount, invested in a single security of a single corporation.

By way of contrast, it happened that a few days after I received this letter, there came to me the annual report of a particularly well-managed life insurance company. It held in security investments nearly $2,500,000 of bonds and stocks. A brief analysis of these investments shows the following facts:

	No. of different issues of securities	Average amount held of each security	Aggregate amount
Municipal bonds	14	$9,260	$ 129,629
Railroad bonds	100	16,371	1,637,147
Miscellaneous bonds	23	17,350	398,990
Railroad stocks	9	15,830	142,458
Bank stocks	11	7,680	85,478
Miscellaneous stocks	2	15,725	31,450
Average		13,700	

Here is a great investment concern, with the most expert advisers, with legal facilities to enforce its rights at little cost, with the Wall Street market within its reach for immediate sale by telephone at any moment that it might begin to fear the future of any of its investments. Yet, in its whole list of investments, there are only two single blocks of securities as big as this $75,000 investment made by one individual who risked his whole fortune to make it. Those two investments are in the underlying gilt-edge bonds of the Pennsylvania Railroad and the Southern Railway. His investment. on the contrary, is in a security of the most speculative sort — so weak that not a single share of it, or of any stock in any way like it, is held by the insurance company.

No contrast could be sharper. No contrast could be a more powerful lesson to the average individual investor. Let us look at the results of these two investments, side by side. For, after all, it is the result that tells the tale.

The individual investor put in $75,000, we shall say, though probably it was more than that. To-day, he gets no revenue, and his principal has shrunk to $11,000. The insurance company put in $2,425,000. At the market prices on January 1st, 1908, their investments were worth $2,315,485. During the fearful year 1907, the investments of the company declined in value only $132,672. That means a shrinkage of less than 6 per cent. The difference is simply the difference between ruin and stability.

The application of this lesson in finance is as wide as the holding of money. It applies with equal force to the man with his millions to invest in bonds and stocks, to the firm with its dozens of thousands to place in banks as working capital, to the little investor with his hundreds of dollars to put away in some safe place where it may defy the machinations of high and low financiers.

To the trustee of trust funds it may mean the difference between an honored name and the jail. For too many of the people who write to THE WORLD'S WORK asking for advice about investments have committed the unpardonable sin of putting trust funds into one or two local securities, frequently of the public-utility class, where they are exposed to the very disaster that overtook the individual whose experience has been written here. They do this in simple ignorance, not with any intent to endanger the funds, or to reap any individual advantage.

No trustee should lock up more than 20 per cent., at the very outside, of his trust funds in the securities of any one locality, corporation, or concern. It is quite safe to say that more than half of the small trusts handled in this

country offend against this cardinal principle of safe investment.

In a big city, it is well for any firm to have more than one bank account, except in such cases as make it impossible. The danger of a contrary practice might be made vivid out of the experiences of hundreds of firms and business men who suffered untold pain and inconvenience during the long five months of the Knickerbocker Trust receivership. Sometimes, of course, it pays to be a "big depositor" or a "big customer" of some one bank. But in nine cases out of ten, it is far more profitable to be a comparatively small depositor or customer of half a dozen books. In the country town the average dealer will find it ultimately to his profit to have accounts in two or three banks. What is even more important, he will find that a five-thousand or six-thousand dollar emergency-account kept in some bank in a central city may stand sometime between him and the sheriff. Even if the sheriff never comes, the time is pretty sure to come when the possession of resources unknown to his local banker or bankers, will give him a power that he never dreamed of when he opened the account.

Let us turn now to the small investor, the man or the woman with from $10,000 down to $100 to invest or to save. A hundred times within the past twelve months, I have written to investors advising them to "split" their investments. One correspondent has a single fund of $20,000, a life-insurance legacy, in General Electric stock. A trifle of $1,000, left to educate an orphan, had shrunk to $300 because its guardian lived on the Great Western road and believed too fondly in its future. The entire little fortune of an old woman in Massachusetts was tied up in two securities, one the stock of a publishing house which cut its dividends in the panic; the other the so-called bond of another publishing house which sold its bonds to its subscribers, purely a "family affair," so to speak. Her subscription to two magazines had cost her more than half her little fortune.

Written down in words, these items look foolish. Written in dollars and cents in somebody's ledger, they often mean tragedy. If there is one section of this country more than another that needs financial instruction it is the South, especially the part of the South that centres around Richmond and Baltimore. Too many men in that region seem to think that loyalty demands that all their savings be invested in Atlantic Coast Line, Seaboard Air Line, Southern Railway, American Cotton Oil, Virginia-Carolina Chemical, and other purely Southern stocks and bonds. If some novelist wishes to write a real tragedy, he might go there to-day and study financial conditions. If he learned his lesson well, he would take his little fortune and spread it thin across this continent, from Portland, Me., to Portland, Ore.

This is a good time to take stock of your invested funds. Most people, like the man who wrote the letter with which this article began, do it only when it is too late. If any man who reads this article has his funds all tied up in one or two stocks or bonds, be they never so good, he had better make an inventory. If his investments total $5,000, he should have at least three separate securities on different properties in different localities. The conditions that may wreck the traction company of Dayton, Ohio, may make the traction bonds of some other town look gilt-edged This illustration is used merely because the newspapers have been full of a threat on the part of the National Cash Register Company to take its plant away from Dayton. It is worth while to warn the investor to keep away from a one-man town.

One of the most common errors is the investment of funds in one group of railroads or industrial companies. Because a man lives in Pittsburg, he might, and one did, become imbued with the idea that the Pittsburg Terminal fight meant a great future for the Gould railroads. He invested all his funds in the bonds and stocks of the Wabash, the Terminal Company, the Wheeling & Lake Erie. His investment has been cut in two and sunk below half, because he backed a judgment that was in error. You may meet Erie enthusiasts, loaded with everything from old first-mortgage bonds down to common stock. In New England they load up with New England stocks and bonds, particularly Boston & Maine and New Haven stocks. They are good, to be sure, but they would look better with a block of Great Northern preferred, or Canadian Pacific, lying between them in the safe deposit box.

If you live in New England, figure out what percentage of your investment is local to that section and may fluctuate with the rise or the fall of the cotton-goods industry, the

shoe industry, or some other industry equally liable to fluctuate. If you live in New York look out that you are not overloaded with Vanderbilt stocks and bonds. If you live in the South, figure out how hard you would be hit by two cotton-crop failures in succession. If Kansas is your home, imagine two years of winter wheat failure. If you happen to dwell in Manitoba, how much of your funds are exposed to the danger that always lurks around the "one-crop-road"? If Boston claims you, how much did you lose when they cut the price of copper from 25 cents to 12?

Railroad stocks are supposed to be safer than industrials. They are if they be well chosen. Yet a supposedly prosperous railroad, whose bonds were legal investments for trustees in a foolish state, went into the hands of a receiver merely because the salt company on whose tonnage it lived pumped the last of the salt out of its wells and moved its plant away. You may find a hundred trolley companies, whose bonds are eagerly bought as first-class investments, that could not earn their interest if some industrial plant shut down. There is no sense in keeping one shoe polished if you are going to plunge the other foot into the mud.

A great speculator once said: "I keep all my eggs in one basket, but I watch the basket!" That may be all right for him. He will probably come to grief anyway, some time or another. In fact, that very man was "cleaned out" in the panic of 1907. This course will not do for the man who cannot watch the basket. You cannot do business and properly guard a speculative account in stocks or even bonds. To do so you must watch the ticker, and not depend on the prices of your securities in the next morning's paper. You must be able to buy or to sell at a minute's notice. Here in New York, a man may sell ten thousand dollars' worth of a listed active bond immediately. He merely takes the telephone, gives his order, and waits. Usually he will hear within ten minutes that his goods are sold. In very active stocks he does not even hang up the receiver. He merely waits perhaps three or four minutes. That is "watching the basket." You cannot do that and do any other business at the same time. Either give up your business or leave the trader's market alone. If you don't, it will "get" you, sooner or later.

C. M. K.

ACCIDENT INSURANCE AND THE EGG BASKET

(The Regular Monthly Article on Insurance)

IF MEN ought to refrain from putting all their eggs in one basket—investing everything in one stock or bond—they owe it to their families to follow the same rule in regard to insurance. This caution is especially applicable to those families which have no savings, but whose roof and food are dependent on the earning-power of one man. If, for example, he is earning $6,000 a year he means as much to the family as a $100,000, 6 per cent. investment, but with the disadvantage that an automobile accident, a fall on an icy pavement, or any one of a dozen other mishaps might at any time make this investment pass a dividend. Not only may an accident keep him from earning money for a time but it may, on account of the doctors' bills, make him an added expense. A widow might just as well have $100,000 invested in a company that was in the hands of receivers and assessing its stockholders, as a wife have a husband whose earning power had been stopped by an accident and his expenses increased by doctors' bills. In either case all the eggs would be in one basket and the basket dropped.

DIVIDING THE RISK

Of course, a man's earning power cannot be split up, as investments can, but the loss resulting from accidents can be divided with an insurance company. If the salary or income of the man of the family would continue while he was incapacitated, or if there are several breadwinners in the family, or if it has other sources of income, all the eggs are not in one basket, and it may be wise for the family to

assume the risk of accident itself rather than to pay an insurance company for assuming part of it. But if there be only one bread-winner and no other source of income, it is usually wise to spend the money that it costs to share the risk with the company. It is impossible to do more than share it, because the companies refuse to issue policies which will give the insured more than 80 per cent. of his normal earning power.

The stock accident-insurance companies divide men, in general, into nine classes, eight of which they will insure at rates varying with the dangers of their several occupations; the ninth they will not insure at all because the risk is too great.

It includes army officers in the field, U. S. marshals suppressing illicit distilleries, acrobats, barkeepers, etc. The companies also prefer not to insure women.

For men in the select class — the least dangerous callings — the premium is usually $4 a year for a policy which, in case the insured were killed, would yield $1,000 to his estate, or in case he were totally incapacitated for work by an accident, $5 a week to himself. For those in the extra hazardous class the rate is about $20 a year for a similar policy.

The premiums for the other classes vary between these two. For example, the following table is an accident-insurance cross section of the cotton industry.

Occupation	*Premium per $1,000 policy*
Cotton planter (business management of large plantation)	$ 5.00
Cotton planter (overseeing labor)	6.00
" farmer or laborer	12.50
" gin laborer	12.50
" mill owner (not working in the mill)	4.00
Cotton mill superintendent	5.00
" mill overseer	6.00
" mill operative	6.00
" goods traveling salesman	4.00

In spite of the general outcry at the death-roll of our railroads there is no other class of men except office-workers who are considered by the insurance companies as so little liable to accident as commercial travelers.

Farming has never been considered a dangerous occupation, yet the cotton farmer has to pay three times as much for his accident insurance as the commercial traveler selling cotton goods. Most policies provide moreover that, if the insured is injured on a train, trolley, or steamer, he shall get double, and sometimes even triple indemnities.

The two most important clauses in the accident policies of the big stock companies provide first, that, for a period during which the insured shall be immediately, continuously, and wholly disabled by external, violent, and accidental means which shall keep him from performing *every* duty of his business, he shall receive the weekly indemnity — in the cheapest policy $5 for not more than 200 weeks. If prevented only from attending to certain parts of his work, he shall receive ½ of the indemnity — $2 a week for not more than 30 weeks. And second, that, in case of his death immediately caused by an accident, the estate of the insured shall receive the principal sum in the policy referred to, or $1000.

The two main clauses in the policies of most of the companies are practically the same. These are the two clauses which make it worth while to pay premiums on an accident policy. But in their efforts to attract and please the public, the companies have added many special clauses. For example, one policy has the following:

(1) Extra indemnities for the loss of eyes or limbs.

(2) An option of a lump sum instead of weekly indemnities in certain specified injuries.

(3) Double indemnities for accidents on trains, steamers, trolleys, elevators, etc.

(4) Surgeon's fees for certain specified operations.

(5) An added value of the policy for every year that it is renewed.

(6) Insurance for the beneficiary named in the policy if hurt on a train, trolley, steamer, elevator, etc.

There are, beside these, several more provisions but they, all put together, as generous as they sound, are not so valuable to the insured as the two main clauses outlined above. These other provisions which take up most of the room on the face of the policy usually entail too accurately described and restricted an accident — such as the loss of "one hand at or above the wrist and one foot at or above the ankle (by severance)" — to be of any great benefit to the average man.

Yet some of these special provisions are valuable — such as that giving added indemnities for injuries received while traveling — and, since the two main clauses in prac-

tically all the policies are alike, upon the respective merits of the special clauses a decision must be made between different policies with this very important reservation: Never be lured by special attractions into insuring in a company which you do not know to be absolutely sound, for the most generous policy in an insolvent company is of little value. There is no advantage in insuring in a company as liable to accident and decease as you yourself are.

THE VALUE OF CAREFULLY DRAWN CONTRACTS

The class in which a man belongs and, therefore, the premium that he pays are decided by the description of himself which he gives in his application for a policy. It is most important that this be accurate, for the policies provide that any misstatement in this description invalidates all claims against the company. As in any other contract, if a mistake were made in an immaterial statement, without attempt to deceive, the policy could not be invalidated on account of it, nor do the good companies stoop to such means of dodging claims. Nevertheless, the policy is a business contract and every care should be taken to have it right. For example, there was a traveling salesman who took out an accident-insurance policy and paid his premiums for nine years. Meanwhile, however, he changed his occupation and became a manufacturer. At this business he was hurt and he applied for an indemnity. The company refused on the ground that his second occupation was more hazardous than the first. Most companies have some such rule as the following to cover this case:

"The insurance is not forfeited by the insured engaging in any occupation or exposure classed as more hazardous than that specified in the policy; but in such an event the insurance will be for such amounts as the premium will purchase at rates fixed for such increased hazard."

Nevertheless, it is far better in any case to have the statements true and to keep the company informed so that there may not be the slightest question of the validity of the policy; for it is not the $4 premium which the insured hazards by careless or false statements — the company will get that — but the $1,000 face value of the policy which his estate would get in case of his violent death.

Every man ought, therefore, to see if all of his eggs are in one basket; he ought to analyze his own situation; and see what his condition would be in case an accident did happen to him. If he can afford to assume the whole risk, he needs no accident insurance. If he cannot, he should carefully select the best policy in the best company that he can find, and insure. Most men are in this class.

ROUSING A GOOD MAN FROM A RUT

(The Regular Monthly Article on Business Helps)

THE advertisements of a large manufacturing concern had gone stale. Its product was one of the very best of a kind of machine in common use; but the advertisements, instead of convincing a new public, gave the impression of mediocrity.

The advertising manager, returned from a vacation on which he had been sent with the hope of freshening his ideas, had settled comfortably into the old, well-worn rut. He was in the very act of preparing another lot of commonplace announcements to be inserted in the company's costly advertising space, when the president of the company came in to see him. The president was followed by the secretary with whom came the general sales manager.

"We have just decided on something with relation to your department, Mr. Billings," said the president, "that will possibly arouse some objection on your part; but it is necessary for you to know it. Here is our display advertising 'copy' for next month, the month thereafter, and every succeeding month for such a period as we may determine." The president's face was stern and his words had a tone of finality.

Billings took the extended manuscript. It was a white sheet ruled to the size of the regular magazine page. Across the blank

area was written the name of the company's product — nothing more.

He was angry and he blurted out his opinion, both of the proposed advertisement and of the policy of the company. Then he braced himself for whatever might come.

But instead of discharging him, the president explained in a painstaking, detailed way the advantages of mere publicity, using phraseology and arguments as simple as if he were addressing babes and sucklings, calling for corroboration upon the other officers, who supported his view.

Billings could feel a part of his brain, that had been asleep for months waking up violently.

"You call yourselves business men," he fairly shouted. "You have spent thousands of dollars to make your machine superior to others and its good points are all good arguments — irresistible arguments; and then you decide to keep your mouth shut about them. Who is going to know that your machine has been improved and is the best? Who will even suspect that it is different, except in name, from any one of half a dozen other machines that have n't had an improvement in ten years? The advertisement that you propose will have the same effect as if one of our salesmen entered it in a competition and said simply: 'Here's our machine. Take it or leave it, as you please.'

"Where 's your argument? Where 's your demonstration? How are you going to sell the machine in competition with the others? Why, if we had a salesman who should act in that tame way, you 'd 'fire' him immediately."

"No, I don't think I should," said the president, quietly. "Certainly not at once; but I think I 'd give him an object lesson."

Then before Billings could open his mouth to reply, they walked out of the room.

The long dormant part of Billings's brain began to work even more vigorously. Before the next night he presented to his employer an advertising campaign so daring that he himself was almost frightened at the audacity of it.

"Why, how long have you had this up your sleeve, Billings?" asked the president, whose turn it was to be astonished. "When did you work this out?"

"Since yesterday afternoon," he replied.

"And when do you propose to spring this — this innovation in advertising, that is, of course provided, after consideration, it has the approval of the company?"

"I don't propose to wait for the approval of anybody, sir. I 'm going to stand or to fall on the success of this scheme. The first month's instalment was mailed last night."

Again Billings braced himself to be "fired." Again the president turned quietly and walked from the room.

And, outside the door, Billings heard him chuckle.

That advertising campaign is yet running, and it is a very effective one in its results, fortunately for Billings, who, contemplating the rut in which he had traveled so long, wonders how he was roused out of it.

BOOKS ON CURRENT EVENTS

THE foremost subject brought forward for the month by public events is the preservation of our natural resources. A short list of the most helpful books on this subject follows:

"The Earth as Modified by Human Action," by G. P. Marsh (Scribner, $3.50). Of fundamental importance, dealing with conditions in the Old and New Worlds, probably the most comprehensive English work on the subject.

"Man and the Earth," by Professor N. S. Shaler (Fox, Duffield & Co., $1.55). An elementary discussion of the geology of the earth and the future of its resources, written in popular style.

"History of the Lumber Industry of America," by J. E. Defebaugh (*The American Lumberman;* two volumes issued; $5 each). Volume I. gives an extended general statement on American forests, the lumber industry, and lumber production.

"The Economics of Forestry" by B. E. Fernow (Crowell, $1.50). Forests and for-

estry from the standpoint of political economy; designed to furnish a trustworthy basis for a national forest policy.

"Our National Parks," by John Muir (Houghton, $1.85). A book on the mountains, glaciers, cañons, forests, and waterfalls of the Great West — a piece of literature as well as a book of information, and a classic of its sort.

"Irrigation in the United States," by F. H. Newell (Crowell, $2). One of the most authoritative and complete books on the reclaiming of arid lands, by the director of the United States Reclamation Service.

"Irrigation and Drainage," by F. H. King (Macmillan, $1.50). A broad yet specific statement of the fundamental principles of culture by means of irrigation and drainage.

"Water Supply and Irrigation Papers," (U. S. Geological Survey). A series of more than two hundred papers on the water resources of the various sections of the United States.

"Water Power" (Vols. XVI. and XVII. of the Tenth Census). A comprehensive statement of the water power of the United States. To be found in most public libraries.

"Preliminary Report of the Inland Waterways Commission, with Separate Appendix" (Senate Document No. 325, 60th Congress, 1st Session). A brief statement of the findings, recommendations, and inquiries in progress by the Commission. The Appendix contains a large amount of data on canals, canalized rivers, and inland water transportation in the United States.

"Report of Transportation Business of the United States" (Twelfth Census: Part II. "Transportation by Water"). Statistics on the shipping business of the United States.

"Mineral Resources of the United States," (U. S. Geological Survey). A series of bound volumes published annually since 1883, treating especially of the mineral deposits of the United States, and the annual production of each mineral.

"The Story of American Coals," by William Jasper Nicolls (Lippincott, $3.50). In four parts as follows: "American Coals, Their Origin; Their Development; Their Transportation; Their Consumption." Fully indexed.

"History of the Coal Miners," by Andrew Roy (J. L. Trauger Printing Co., $1.75). A history of the coal miners of the United States from the development of the mines to the close of the anthracite strike of 1902, including a brief sketch of early British miners. Illustrated.

HOW THE STOCK EXCHANGE WORKS

BY

C. M. KEYS

THE question of the possibility of stopping speculation in stocks and grain and the like is raised by the bill introduced in the House of Representatives by Mr. Hepburn of Iowa; and it is emphasized by references made to it in several messages from the President of the United States.

Of course, a man must find out what such abolition means. If it is wrong to trade in stocks, surely it is wrong to trade in cereals, in cotton, in produce, except for cash on delivery. That phrase "trading" really has come to mean buying and selling for future delivery, on margin. It is against such transactions that Mr. Hepburn has bent his lance.

It means, then, that the Stock Exchange, all the hundred other smaller exchanges throughout the country which deal in stocks, the numerous cotton exchanges, the grain exchanges, the produce exchanges should be prohibited from allowing their members to deal in anything but actual stock.

The average man does not know what the Stock Exchange is. He cannot learn much about it by reading the daily papers, or the speeches of the legislators. He can get a fair idea of it by reading many dry and heavy books, if he has the time, and the money to buy the books; but even this information will mislead him. He will be certain to take the

exchange too seriously. It is a serious enough subject in its larger functions; but in its daily life the business of the Stock Exchange comes very near being a joke.

It consists in buying and selling stocks and bonds. There are several hundred issues of stocks and bonds listed on the Exchange; and several other hundreds traded in on the "Curb," which is an out-of-door market, conducted in a free-and-easy way, where men may buy and sell stocks not listed on the Exchange. So far, no one will quarrel with the business. A man who has money and wants to invest it should be able to find a market where he may bring his money and get for it the stocks and bonds that represent the great enterprises of his country. Similarly, a man who has stocks or bonds and needs money for them should be able to find a market where he may bring his securities and get money for them at the ruling prices. That market is Wall Street. Moralists and agitators do not criticise this function of the Wall Street market. They concentrate their fire on the practice of buying and selling on margin.

My purpose in this article is not to discuss the question of suppressing speculative trading, but to explain the actual workings of the New York Stock Exchange, which is of course the great center and mechanism of this trading as well as of legitimate transactions.

HOW MARGIN ACCOUNTS ARE CARRIED

To buy on margin means simply that you bring a certain amount of money, say $1,000, to a banker, and ask him to buy for you stocks worth, say, $10,000. He takes your money, buys the stock, then goes to a bank with that stock and borrows from the bank, say, $8,000. The other $1,000 he lends to you himself. Banks will not lend more than 80 per cent. of the market value of stocks. So long as you remain the owner of that $10,000 worth of stock, you pay interest on the loan at the ruling rate for money.

Selling on margin, or selling "short," means that you deposit your $1,000, and order the banker to sell for you the $10,000 worth of stock. You do not own any stock. Your banker, when he sells that $10,000 worth of stock, has to deliver it to the man who buys it. He, therefore, has to go out and borrow the stock from someone who is willing to lend it. Ordinarily he has no trouble in doing this. The "loan crowd" on the Exchange makes a business of loaning stocks in this way. You do not have to pay for this privilege of borrowing stock. Nor do you have to pay any interest when you are "short" of stocks in this way. That is the reason that the traders and half-professional speculators prefer the "short" side of the market to the "long" side. When a man has bought stocks, he is said to be "long of the market." When he has sold, without having the stocks in his possession to deliver to the buyer, he is said to be "short."

Some would-be experts have said that 97 per cent. of the entire transactions are of this kind. Others, equally qualified, have put the proportion as low as 90 per cent. Certainly, the very great majority of the transactions in stocks consists of such accounts. In bonds, particularly mortgage bonds, the great majority of the transactions consists of legitimate buying and selling for cash.

Supposing that only 5 per cent. of the stock transactions and 75 per cent. of the bond transactions of the Exchange are legitimate buying and selling for investment, this legitimate trading for the year 1907 reached the very respectable total of $982,570,000 in stocks and $425,000,000 in bonds, or an aggregate of $1,407,570,000. The "margin" trading, on the same estimated basis, amounted to about $18,300,000,000.

I mean now only to sketch a few of the salient features of the Stock Exchange market, its whimsical ways, its beautiful irresponsibility, its slap-dash methods, its smug ignorance about itself, its strong conviction that it rules the universe. It is as full of whims as a marriageable maiden, and as treacherous as a wounded bear. In happy days, it is childishly joyous; but in adversity it whines incessantly. Its ways are beyond analysis. It would be easier to chart an April day, or the whirlpool of Niagara.

THE MIND OF A TRADER

One night in March, a newspaper editor, browsing in an uptown hotel, encountered a member of the New York Stock Exchange. They had met before, and they knew one another pretty well. The conversation drifted toward stocks. The broker lamented the condition of the market.

"I have not done a thousand shares in the past month," he said.

"Why don't you try something on this Erie affair?" asked the editor.

"What Erie affair?" asked the broker.

"The maturing notes. They are due on April 8th, and there are five and a half millions of them. I don't think they can be financed."

It was all news to the broker. He has spent his life on the floor of the Exchange, and seldom read the papers. As to corporation finance, he knew nothing about it; for that is the way of the trader. He seldom knows anything that someone has not told him in a conversation.

This particular trader thought over this suggestion quickly. A decision involving a hundred thousand dollars of capital is worth about five minutes of a trader's time and thought. He said little. He asked a few questions about the Erie, the position of the Morgan firm, the general situation. He learned that these notes, due in a fortnight at 100, were selling in the market near 90. He argued with himself that, if they were going to be paid, the Morgan house would certainly have bought them all in, and would stand to win $550,000 by simply holding them until April 8th. The conclusion was obvious; they were not going to be paid.

That meant a market disaster. He saw, with the eye of his mind, the result of an Erie receivership. He figured out that all the trunk lines would feel the evil effects of such a step, for he knew that the public which owns stocks is apt to get frightened and sell on such news. He had himself made some money in January when the holders of the stock of Louisville and Nashville had thrown some stock overboard on the news that the Seaboard Air Line had collapsed.

The next day, he went around among the traders on the floor, and told them there was to be a great rise in the market. As is the habit of the brotherhood, they did not believe him; but they refrained from getting in too deep on the "short" side of the market. The rumors that he circulated did not cause any rise; but they prevented the usual general selling around the room. Meantime, he had scattered orders around among a few houses to sell stocks, principally Reading, Union Pacific, and New York Central.

By the end of the day, the market was not much lower than at the beginning; but he had managed to sell nearly 15,000 shares of stock, which he did not own. His brokers borrowed it from the people who make a habit of lending it every day, and the buyers received this borrowed stock. The next day the process was repeated. At noon, he found that he had sold, in all, nearly 26,000 shares of stock. The market was beginning to look a little bit weak.

That afternoon, this broker did little. He took a seat on the bench that is built around the "U. P. post," the pillar where men trade in Union Pacific stocks. The market was idle, and men sat around and talked the gossip of the pit.

"Where's that bull market of yours, Bill?" asked one.

"Fell through," said Bill, "because they were afraid of this Erie business."

"What Erie business?"

"You know those notes — pretty near six millions of them — and look at the prices! That's warning enough, ain't it?" asked Bill.

In various forms, the tale spread abroad. Men in the bond department heard it, and began to take notice that the Erie bonds, of which there are many issues, had been steadily sold for weeks by various brokers, quietly, but insistently. Around the Erie post, there was some bad trading, handicapped by a flood of stock from outside, where real owners of the stocks were catching the general fright. That very ominous word "receivership" was bandied back and forth.

The floor became serious. When that happens one may always expect trouble. Trained analysts take days to diagnose the situation of a corporation in trouble. The Board does it in a few seconds. Its conclusions are generally weird and wonderful, as to the methods by which they are reached, but they are usually almost if not quite correct. A trader will tell you, if you let him, that "Dan" Reid and "Jim" Keene are working together to "smash" a pool engineered by some great operator; and that, therefore, it is safe to assume that the aforesaid operator is going to be "smashed." After a while he is smashed. The trader congratulates himself on his perspicacity. You wonder at it, too, particularly when you discover that the two alleged conspirators have not met in many months, and that one was in Europe and the other in Indiana at the time of the alleged "smashing."

In fact, the explanations that make the market on the Board are simply effluvia from

overheated imaginations. In nine cases out of ten, they are made up on the Board to explain things that seem to lack an explanation. The trader believes that every phenomenon has a cause. If he sees phenomena and does not know the cause, he makes a cause, attaches it to the phenomena, and sets it afloat. By the time it has passed through a dozen mouths, it becomes gospel. By the time it has gone half way through the 1,000 members of the Exchange, anybody that questions it or attacks its validity is a liar, or a paid tipster.

So with this Erie business. For nearly a week, the Stock Exchange knew positively all about the Erie affair. I was told about it by three separate members, and they all had the same thing to say. I happened to know, at the time, that neither the president, the chairman, nor any of the directors of the Erie was at all certain about the notes, or about the future of the Erie. They did not know what was going on under the surface. Mr. Morgan was in Europe. The Wells Fargo Express Company, a Harriman concern, had been lending money to the Erie all year. Even the omniscient Mr. Harriman was worrying over it. Not a soul of the Erie's guardians knew what was going to happen to it.

But the Stock Exchange knew — certainly, beyond a doubt, finally. So stocks went down. A few hundreds of people outside heard all about it, mainly through the financial columns of the newspapers, which are supposed to guide the opinion that makes the market, but in reality are mostly guided by the opinion that is made in the market. Everybody came to the conclusion that the Erie was "a bad lot," always had been a "bad lot," and always would be "a bad lot." Many other people, who had no interest in the Erie, never had had, and never would have, sold other stocks, just because everybody was feeling that way.

So it kept up for a day or two. Then other rumors came. The time drew nearer for the critical act, the passing of the Erie or its salvation. A definite story was published to the effect that the Harriman people would save the Erie; and that the Morgan people were in favor of a receivership. Stocks joggled around, now up, now down. The rumors grew more definite. Veiled statements appeared in reputable papers, evidently written by men who had talked with the bankers, but had been told not "to give it away" officially. The market became steady.

Bill, the broker, decided that the tide had turned. He went quietly about his business, bought a hundred Union Pacific here, picked up a thousand Reading there, jollied a friend into selling him two thousand New York Central over the lunch table, called up a banking acquaintance and confided in him that he had better "let go" that block of U. P., because the market "looks treacherous to me." The acquaintance did not believe him, of course, but it disturbed him nevertheless. He asked the price of Union Pacific a little oftener than usual throughout the day, and finally, along in the afternoon, he sold out.

That is a lesson in psychology. A trader knows that nobody outside the Exchange believes his news or has much respect for his judgment, but he knows also that human nature is human nature; and that it 's just as natural for the average man to worry when he has stocks as for the average woman to worry when she has children. Therefore a rumor of trouble ahead affects the man much as a rumor of scarlet fever down the street affects the woman.

The end of it was that within forty hours Bill had bought back his 26,000 shares of stock and 3,000 more. The profit on his transaction was not very large for such a big operation. He had sold, as it were, merchandise worth $2,600,000 or more; had later bought it back; and on the whole transaction he cleared up a total of less than $15,000. He had risked something, of course. If something had happened to rush the prices of his stocks upward ten points during the time while he was "short," he would have been a bankrupt. That was a remote contingency, however. It scares the outside buyer or seller, but not the trader. A man who watches a steeple-jack at work sometimes wonders what would happen if a rope broke; but the steeple-jack himself does not worry.

The foregoing is an actual experience; or rather, it was told to me by the broker as an actual experience. He is a friend of mine; but I should not resent it if I discovered that the story was made of the whole cloth. Nobody expects a floor trader to know exactly whether or not he bought or sold anything, yesterday, to-day, or last year. His whole life work is to make people think that he did things he did not do, and that he did not do things he did do. If his life work sometimes overlaps into his social life, he is no

worse than most of us. If he talks shop at all when he is off the Board he has to do it the same way he would do it on the Board.

THE LIFE OF THE AVERAGE TRADER

If one reads the newspapers and believes them, one would think that the bulk of the market trading every day is made up of transactions like the one here described. It is very far from being the truth. The average trader does not "load up" with stocks, or sell a lot of stocks, and wait for days and weeks to even up. The real trader never has any convictions. He goes to the Exchange at 10 A. M., without much thought about the things the day will bring forth. He sees some buying in Union-Pacific, perhaps. He stands around and listens. Presently he sees Macdonald, whom he has always considered a Harriman broker, whisper a few words to an idle broker over in a far corner. The idle broker lolls around a minute or two, then strolls over to the Union Pacific post. Presently he goes away, after buying a thousand shares at 127.

The average trader, on evidence like that, would consider the purchase of a few hundred Union Pacific shares a good risk. Perhaps he will buy 100. Then he watches the game. If men stroll into the crowd, buy stocks, stroll out again, he watches where they go. If they happen to pass close to Macdonald, he believes the "Harriman people" are still buying. Perhaps the stock moves up half a point during the day. Along in the afternoon, the trader gets tired of watching. Perhaps the signs are not very clear. He sees that he can sell at a half point profit. He wants to go to lunch, so he sells. He has cleared up fifty dollars. Perhaps he has had half a dozen transactions during the whole day, of which this is only one. Some of them will almost invariably show losses. A good trader, in a quiet market that shows no great movement either way, can clean up a hundred dollars or so day after day. A poor trader will lose the same amount.

It is not very exciting. In fact it is the deadliest life in the world, when the market is quiet. This is "scalping" the market. It goes on incessantly. It is about as ennobling and as interesting as the career of the man who buys the city garbage and picks it over for treasure trove. The only respect in which it is not so good is that the garbage expert makes a fortune, while the scalper barely makes a good living.

HOW AN ORDER FOR REAL STOCK IS FILLED.

There are more than a thousand members of the Exchange. Probably three hundred make most of their living by trimming fractions from the prices of stocks in the way described above. Of the rest, the large majority are "commission men," or "bond traders," or "operators." The social distinction is quite sharp. If you are a commission trader you are highly respectable, but generally rather poor. About one year in five is a good year for the commission trader, for he makes his living by being paid $2 per 100 shares of all he buys or sells on the Exchange. If you who live in Louisville go into the local brokerage office and buy 100 shares of Louisville & Nashville stock, your order is telegraphed to a New York house. This house telephones it to the Floor, and asks for a certain trader. He may be out on the Floor, sitting around waiting for business. An electric button is pushed, and on the big boards that line the sides of the room his number goes up. He sees it, and hastens in, hoping that somebody wants a million shares of something. He gets your order to buy a hundred shares of stock.

He goes out and buys it. If you have stipulated a price, he may not be able to get it. Perhaps he will wait all day. Maybe it will be next day. It might be a week; unless the order is cancelled in the meantime. Most orders of this kind are "good till cancelled." If, on the other hand, he is simply told to get it, he goes out and gets it, very quickly, as a rule. If the stock is active, he can get it and report it in two minutes. If it is not active, he may not be able to get it at all. In such a case, he goes to a man known as a "specialist," asks him what he has on his books in this stock, and at what price. Perhaps he will make a bargain with him. For this, the broker gets $2. You pay $12.50, but the other $10.50 goes to the banking house through whom you put the order. The commission trader is the hired man. Of course, he is often a member of the firm that gets the order; but in case the order comes to him through some other firm he gets the $2, just as though he were an independent trader on commission.

The life of the commission trader may be easy and lucrative, or it may be hard and penurious. It depends on his personality,

his skill in trading, and several other things. Unhappily, one of the most important is his lack of morals in bribing the telephone clerk. Each house has a telephone booth, on the Exchange, operated by a clerk. The rules of the Exchange are strict; but the lamentable fact remains that this clerk is very often bribed. If a trader greases the hand of this clerk freely, he is apt to get quite a bit of business from this house. The banking houses usually instruct the clerk to call for a certain broker, but if the clerk does not like this broker he is apt to give the business to others, claiming that the named trader was slow in answering his number, or failed to answer it, or some other excuse. It is a fact that the telephone booth is a natural stepping stone to the Floor itself; and that traders who will not bribe are constantly "knifed" by many of these telephone clerks.

The bond traders are not numerous, for the same men who trade on commission in stocks will often be found to be traders in bonds. This is usual. A few men on the Exchange do the bulk of their business in bonds. They are regarded as so quiet and inoffensive as to be perfectly harmless. If a scalper, or even a commission trader of the usual sort, ever tells you that So-and-So belongs in the "bond crowd" you may be quite sure that he says it with the same indulgent state of mind in which the society leader in an Episcopalian town will remark: "Oh yes, I' ve met her: she is a Methodist!"

THE MAKING OF AN "OPERATOR"

As to the "operators," they are brokers who have been taken up by the newspapers. A man may be an ordinary trader on a very large scale; he may do his "scalping" in lots of 10,000 shares; he may be the master of the whole market; he may make a fortune and retire to a gentleman's farm in Jersey; but he will not be known as an "operator" unless he has been taken up by the newspapers. If some big trade of his on the Board has been lucky enough to attract the attention of the financial department of the *World*, or the *Herald*, or some other paper, and has been laid bare in a column story on the front page of the paper, the broker sheds his husk and becomes an operator.

An operator, then, is a broker who deals in big lots of stock; and who is known to be dealing in big lots of stock. He usually has convictions. Sooner or later, they "get him." As a mere broker, he never read any of the papers very much; he failed to study the annual reports of the railroads; he had no statistical department in his office. As an operator he does all these things. After a while the statistical department will probably wreck him. He pays a clerk $50 a week to dig up figures about Rock Island. He reads the figures. He does not generally understand them very well; but they give him an idea that the stock is going up, up, up. He goes and buys it. By the time he has carried about twenty thousand shares of it for a year, borrowing about $300,000 from the bank, and tying up about $200,000 of his own money in the meantime, he is ready for the undertaker. The bank keeps one handy; they call him the loan clerk. One day he looks over the loans, seeking whom he may destroy. He picks out that loan of $300,000 on Rock Island. He tells his decision to the vice-president. The latter calls up the operator's office, and politely requests that the loan be paid.

The broker-operator acquiesces. One has to acquiesce with an avalanche. He goes to all the other banks, trying to renew the loan. But money is scarce: nobody wants to make that loan. The stock is down fifteen points from the price at which it was when the statistical department went wrong and led the operator into deep water. That means a loss of $300,000. In the long run, the operator has to take it. It frequently breaks him. Bankruptcy is not at all an unusual price for the operator to pay for a statistical department at $50 per week, particularly when he lets the department give him convictions. Any of the veterans of the Floor can tell you that a man who has any convictions about stocks should go to a sanatarium, not to the Stock Exchange.

THE AVERAGE BROKER'S KNOWLEDGE

People who read this article will find it decidedly contrary to their settled ideas, for to most men the Stock Exchange trader is a man who knows all about stocks. I spent several years in Wall Street, met many traders and members of the Exchange, came to know many of them very well. I have never met a member of the Stock Exchange who knew anything worth while about stocks unless he had learned it before he went on the Exchange. On the Floor they know all about the prices of stocks; but there the accurate knowledge

ceases. Beyond that lies a host of rumors, a world of imagination, a whole world of second-hand impressions. In 1903 I met the trader who did nearly 50 per cent. of the trading in Canadian Pacific through an exciting three-months campaign. He told me that the main line of the Canadian Pacific ran from Toronto to Montreal; and he had never heard the name of Lord Strathcona.

To illustrate how much it is not necessary to know, an instance of trading on the curb may be in point. It took place in the last week in April. A curb broker, being in need of funds, discovered that he had in his office a thousand-share certificate of a mining stock that had once been very popular. He determined to try and sell it. He went out and offered it. He found that he could sell it quite freely in 100-share lots. He did it. That afternoon, he sent an office boy up to the office of the company with the 1000-share certificate, to have it split up for delivery to the buyers. The office boy came back and announced that the company had moved. The broker investigated. He found out that the company had folded its tents and departed to parts unknown. The next day, he had to go out into the Street and buy back the shares he had sold. He had sold something that did not exist; and he had to make good his contract. The only way he could do it was to buy in 100-share blocks of that worthless stock and deliver it.

THE GREAT COMMISSION HOUSES

The link between this strange, irresponsible, money-mad market and the public is the commission house. This is a class of banking house in Wall Street. The Wall Street bankers are of various classes. One class, represented by such firms as Kuhn, Loeb & Co. J. P. Morgan & Co., Speyer & Co., consists of wholesale buyers of bonds and stocks. They make the bulk of their money by purchasing from corporations, governments, or cities great blocks of securities, sometimes as much as $100,000,000 at a time, and selling them to the other brokers and bankers, or to the public, at a price a little higher than the price they paid. This difference, known as a "commission," or "underwriter's profit," varies with the class of the securities bought. In very high class bonds it may be as little as ¼ of 1 per cent. In the recent case of the $40,000,000 issue of Pennsylvania bonds, Kuhn, Loeb & Co. bought the bonds and re-sold them immediately. If the net profit was only ¼ of 1 per cent., it brought in $100,000, less advertising and legal expenses. In such bonds as the Japanese bonds, taken in war time, the profit ought to be over 5 per cent., or $5,000,000 on every $100,000,000 worth of bonds.

The next class of banking houses is, perhaps, half wholesale and half retail. They buy from Kuhn, Loeb & Co. and other great underwriters of the big issues; but they usually buy small issues, perhaps as high as $10,000,000 in a few cases, on their own account directly from the corporations. This class does not deal in stocks to any great extent, though it may be taken for granted that every Stock Exchange house does take some part in the stock market. As a rule, however, this second class of bankers trades in bonds, in foreign exchange, in notes, guaranteed debts of corporations, and sometimes in commercial paper.

After them come the commission houses. In theory, these bankers never buy anything for themselves. They simply open their doors and invite the public to come in and do business. They have a member on the Floor of the Stock Exchange. They maintain offices where customers may come. They advertise in a few papers that they are doing a "general commission business." They run their own wires to Louisville, Richmond, St. Louis, Chicago, Boston, Philadelphia, St. Paul, Toronto, Montreal, San Francisco, and other important points, leasing the wires from the telegraph companies. They open their own offices in these towns, or make an alliance with some independent firm there.

THE PART OF THE PUBLIC

The public visits the offices, takes its money there, buys and sells stocks by merely giving orders from the depth of a leather chair. In the big offices in New York, there is a board somewhere in sight, with a list of all the stocks, and boys constantly changing the figures on the board as the prices change on the Exchange. Telephones are everywhere. The ticker, a little machine operated by the Stock Exchange, brings the prices into the office. Men stand around it, generally smoking. Nearly everybody smokes in Wall Street, for it is a nervous place. Most of the big offices supply cigars *ad infinitum*, and the cigars are good.

Here comes the public, full of avarice and money-madness. Of course, these offices vary greatly in character. When one active commission house failed in April, it was announced that it had only twelve customers, yet it did a big business. Its customers were all "big customers." Another house, seemingly of the same character, will have several thousand accounts on its books at all times. Its customers trade in small lots, perhaps averaging 200 shares on each transaction, or even, in some few instances, averaging below 100 shares. Few of the Stock Exchange houses will accept customers who want to trade on margin in less than 100 shares. It is not considered good form. Many of the old fashioned houses are very finicky. I have known a commission house to refuse the account of a multi-millionaire on the ground that it did not want customers who had the habit of "plunging" in the market. Houses of this class are extremely proud of their clientèle. They ask for a letter of introduction from every customer, even though he come with many thousands of dollars to his credit.

The commission business is enormous, of course, and it is theoretically safe for the commission broker. He is not supposed to commit himself or his house in the market. Unfortunately, he does, very often indeed. In almost every instance of a failure of such a house, the failure is due to some member of the house going into the market himself. In other instances, it is due to the refusal of customers to pay their debts to the firm. Customers who have followed the advice of the banker and lost money frequently cannot meet their debts. The house does not want to sell them out, or press them to the wall. A kind-hearted banker of this class hardly ever sees a year when he is not obliged to write off a certain amount of bad debts, incurred by trying to help some of his customers out of a hole.

It is as well to point out here one of the truly deplorable habits of Wall Street. It arises out of the custom that has grown up of leaving one's stocks in the hands of the banker. A man comes in and buys 1,000 shares of Great Northern. He pays $125,000 for it. He does not take it away, but asks the banker to keep it for him. That saves trouble. It is a very widespread habit. Sometimes, blocks of stock owned in this way are allowed to lie for years in the hands of the bankers. Very frequently, they are even left in the names of the bankers, who collect the dividends and send their own check to the customer at such times.

Too often, bankers take advantage of this habit. The banker decides that General Electric is going down. He remembers that 1,000 share certificate that lies in his safe. He sells that much stock, and borrows it from his own safe. If all goes well, and the stock does go down, he will, after a while, buy back the stock, and put it into the safe. If, in the meantime, the customer asks for the stock, the banker will go out and buy it, or borrow it from someone else. If the banker happens to get into deep water, and fails, the customer writes to the assignees for his stock, only to find that it is not there.

This is not by any means a universal habit in Wall Street. It is, however, quite widespread enough to constitute a real menace to the public. If a man buys stocks and pays for them, he ought to take them away and keep them. There is surely risk enough in the business itself, without adding a gratuitous guarantee of the honesty of the banker to the amount of the stock purchase. That, in effect, is what a man does when he leaves his property, in negotiable form, in the hands of his banker.

To eliminate *all* the speculative elements, and at the same time retain the legitimate market functions of Wall Street intact — that is the ideal toward which the reformers are groping. I do not believe it can be done. Many of the evils can be minimized and should be minimized. Stricter laws should regulate the conduct of brokerage houses; loose, unrestricted brokerage should be destroyed, just as the law seeks to destroy loose, unrestricted banking. So far as may be, the habit of public speculation on margin should be discouraged, whether in securities or staples. Probably it could best be done by making it illegal to transact business on a margin of less than 20 per cent. To-day, the normal margin is 10 per cent.

The Stock Exchange itself must take the lead in reform. The law can merely superintend. If the Stock Exchange is stubborn, or careless, or dumb, the law may some day destroy the Stock Exchange, good and bad alike. Wall Street needs a leader. So far as the Exchange is concerned, it has none. The Stock Exchange will fiddle while Rome burns; it is its way, and no man may lightly change it. Also it seems to know no better.

MOUNTAIN CLIMBING AS A SPORT

SOME SIMPLE RULES FOR THE GUIDANCE OF THE NOVICE IN ONE OF THE MOST EXCITING RECREATIONS IN THE WORLD

BY

GEORGE D. ABRAHAM

(AUTHOR OF "THE COMPLETE MOUNTAINEER," MEMBER OF THE CLIMBERS' CLUB, THE SWISS ALPINE CLUB, ETC.)

With photographs mainly by the author

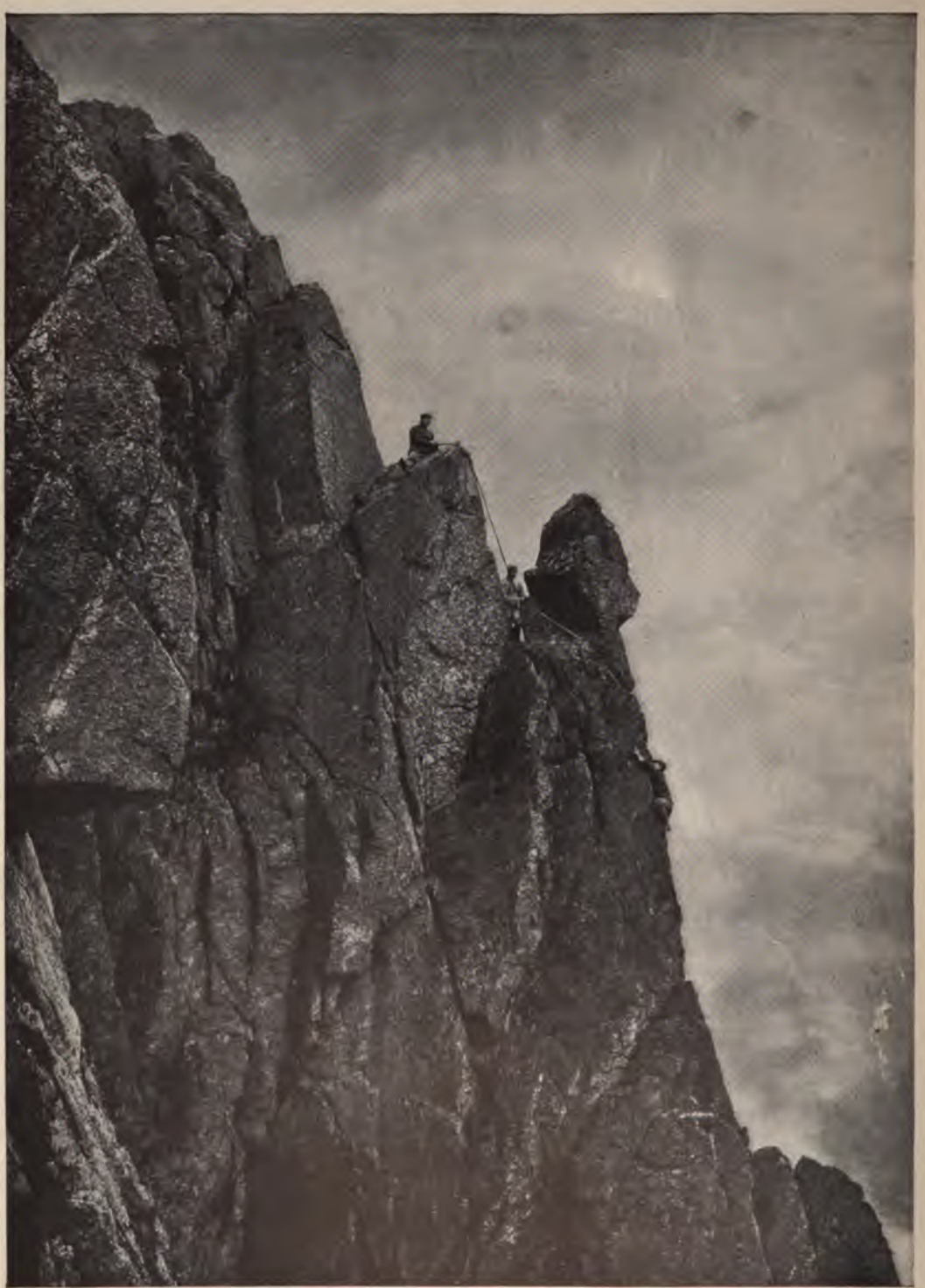
THERE is no sport in the world like mountaineering. Its pleasures are not marred by the slaughter of innocent animal life, nor discomfiture to any of our fellow beings, and perfect health and physical fitness, such as no other sport can give, are numbered among its greatest rewards. But its pure joys and benefits are shared by relatively few people, for mountain climbing for the sake of recreation is a sport of comparatively recent times. The ascent of the Wetterhorn in 1854 by Mr. Justice Wills is generally recognized as the beginning of the genuine sporting side of mountaineering. In recent years, however, mountain clubs have been formed in many parts of the world and the number of those who appreciate the pure joys and benefits of mountaineering is increasing. Fortunate are those who have tasted of these and renewed health and strength far above the cares and troubles of the world, among the crags and silent snows of the everlasting hills.

It is a mistake for the American to imagine that he must go to the Alps or the Himalayas in order to find peaks worthy of his ambition. A vast range of mountains stretches across North America from far south of the United States to Alaska. Mount St. Elias (18,092 feet) is the most notable culminating point in the icy North, and its ascent was the object of the Duke of Abruzzi's expedition in 1897. A tremendous expanse of slightly sloping glacier had to be crossed in order to reach the peak. Its ascent required a month of strenuous exertion, but on July 30th of that year his party stood on the longed-for summit, and the Italian flag was left floating in the Arctic breezes.

Mount McKinley, which rises in Alaskan territory to a height of nearly 20,500 feet above sea-level, is supposed to be the loftiest peak in North America. Dr. F. A. Cook, who was a member of the Peary Arctic Expedition, succeeded in reaching its summit in 1906. In his book, "To The Top of the Continent," he describes it as the steepest and the most Arctic of the great mountains of the world.

The Canadian Rockies have been called "the Switzerland of North America" on

'TWIXT EARTH AND SKY
Buckhaille Etive, near Glencoe, Scotland

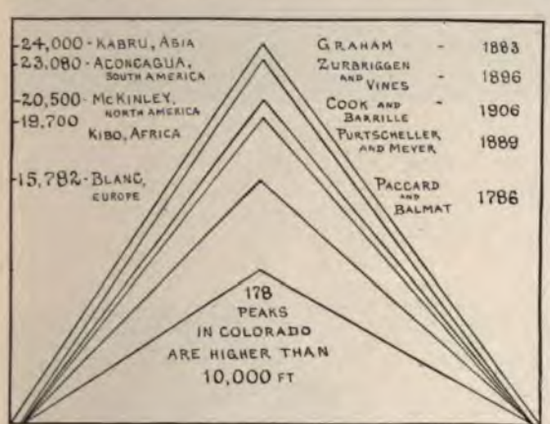


CLIMBING THE ARROWHEAD ARÊTE OF GREAT GABLE

A difficult peak of the Cumbrian Mountains, England

account of their natural beauties and attractions. Dr. Norman Collie has organized a number of American climbing-clubs for expeditions among these first-class peaks. One of these, Mount Assiniboine, is 11,839 feet above the sea, and has been described as the Canadian Matterhorn.

As a stimulus to American interest in the vigorous sport of climbing, it is worth while to recall that the Rockies are in extent vastly greater than the Alps, and that it is not at the present time known which is the highest peak. The average height of the mountains is from 10,000 to 11,000 feet. Mount Forbes, in the northerly part of the group, is generally supposed to be the loftiest, the summit reaching nearly 14,000 feet above sea-level. There



THE HIGHEST POINTS REACHED ON FOUR CONTINENTS

The loftiest peak in the world is in the Himalayas, but no one has yet gone higher than Graham, 24,000 feet

is also rare sport to be found in the Appalachians and in other parts of the United States.

There is, of course, especial interest in being the first to reach the summit of a great mountain, but there is always sufficient interest awaiting anyone who scales a lofty peak for the first time. It matters little, for instance, how many people have strode the crest of such a peak as the Matterhorn. Its individuality is still there, and to each climber who makes his first acquaintance with its snow-covered slabs and shattered ridges the element of novelty is scarcely wanting. After all, the climbing is the main thing.

For climbing foothills and for work in the lower altitudes of the more majestic peaks, little advice is needed, even by the novice. There it is simply a question of physical fitness, of endurance, and of some ingenuity. But the conquest of such difficult summits as some of those shown in the accompanying illustrations requires expert advice and a sort of apprenticeship. The present article is intended merely as a help to the beginner, assuming that he must make his beginning without the aid of an experienced mountaineer to guide his efforts. It would obviously require an entire volume to enter into the

IN THE CANADIAN ROCKIES

Swiss guides from the Alps pilot climbers on some of these mountains

details of rock-climbing and snow-craft on the first-class peaks.

THE DANGERS OF MOUNTAIN-CLIMBING

A short time ago a newspaper contributor suggested that, as a remedy against accidents, "warning-boards should be placed on all dangerous places, and danger-signals on all the treacherous crevasses." It would be an education worthy of the Fresh-Air Fund if that writer could be lured to the comparatively small Glacier des Bossons on Mount Blanc,

A SNOW CORNICE, OBSERVATORY GULLY, BEN NEVIS, SCOTLAND

Going over cornices is one of the most dangerous feats of mountain-climbing. Several parties have been lost by masses of the cornice falling on them or with them

A MOUNTAINEERING CLUB IN THE OLYMPIC MOUNTAINS, WASHINGTON

Crossing the snow-fields as they are in mid-summer

and be shown its thousands of crevasses that would require labelling — and the surface is constantly changing. Any sport that defies to any great extent the laws of gravitation must of necessity be dangerous, and what recreation is worth its salt unless it possesses a spice of danger? But foresight and prudence can do much to lessen the dangers.

The man who makes it a rule to climb only in absolutely settled weather will have little to fear from the danger of sudden storms. It may be remarked that as long as the wind blows from a northerly or easterly quarter, or from any point between these two, any sudden changes that occur are scarcely likely to prove serious. The only way correctly to gage the direction of the winds in the higher altitudes is to watch the movements of the clouds. The really unavoidable danger is that which arises from comparatively small stones, or pieces of ice that become detached and fall unexpectedly. They may be loosened by the action of frost followed by the warmth of the sun, by sudden changes of wind, by another party on the mountain, or by a variety of smaller causes. Yet accidents from this source are surprisingly rare.

Judged by the fatalities, the easiest parts of a mountain are the most dangerous. After a hard struggle on the upper crags, human nature is apt to treat the lesser with disrespect. Novices are especially apt to underrate the risks, as was shown by an amusing entry in the visitors' book at a well-known climbing centre: "Ascended the Pillar Rock in three hours, and found the rocks very easy." This was probably written by a young climber with more self-assurance than experience. The entry immediately below this is written by a well-known Cambridge don, who adds: "Descended the Pillar Rock in three seconds, and found the rocks very hard."

The following advice may be helpful to some who may engage in this sport without the opportunity of an apprenticeship under an experienced climber. The rules are merely the application of plain common sense.

RULES FOR MOUNTAINEERING

(1) Start climbing mountains near home. Learn to walk slowly uphill, and how to find the route by map and compass in misty and stormy weather; do not attempt any of the more difficult rock-climbs.

(2) Let every article of equipment be of the very best quality; pay constant attention to the condition of the boots, more especially the nails.

MOUNTAIN CLIMBING—BUT NOT FOR PLEASURE
Packing up the Chilkoot Pass, Alaska, before the days of the railroad

(3) Always begin a climbing holiday gently, after a few training walks.

(4) Procure the very best guiding assistance available.

(5) Do not undertake a serious expedition with untried companions.

(6) Never attempt a high mountain when it is out of condition; three days should be allowed after stormy weather.

(7) Do not climb in bad weather; if a storm should arise during an ascent, turn back at once if the slightest doubt should exist.

SUMMER COASTING IN THE WESTERN MOUNTAINS

(8) Always be clothed to withstand the coldest temperature that is likely to be encountered.

(9) Take sufficient food for the wants of the party if they should be required to spend the night out.

(10) Allow at least an hour to intervene from the time of waking to the hour of setting out.

(11) Get equipment together the night before.

(12) Do not delay putting on the rope.

(13) Never climb alone, or with less than three men on a rope if any snow work is to be attempted; hold the rope firmly but do not jerk it in any situation.

(14) Let the best man lead going up, and take the last place on the rope in the descent; the leader's decision should be final on all questions.

(15) If a slip on the part of any member of the party would prove dangerous, only one climber should move at a time, and the rope should be anchored.

(16) If a slip on the part of any one climber would be certain to precipitate the whole party, the route should be immediately forsaken.

(17) Do not pass underneath or over cornices, nor cross slopes of snow that are swept by avalanches.

(18) The spirit of rivalry in any form should never enter into a mountaineering expedition.

(19) Never glissade down a slope of any length unless you have ascended it less than three hours previously.

(20) Eat and drink as much as possible, but especially avoid contaminated water.

(21) Always climb slowly, deliberately, and carefully; a slip, even when harmless, is something to be ashamed of.

ON THE GRINDELWALD GLACIER, IN THE SWISS ALPS

THE MOUNTAIN-CLIMBER'S OUTFIT

First of all, the famous saying, "A soldier is no better than his feet," is equally true of a climber. I have no hesitation in saying that a pair of properly nailed boots are the most important details of a climber's outfit. The leathers for the uppers should be of the best zug or chrome, soft and absolutely waterproof. The heels should be low, and they, as well as the soles, should project fully a quarter of an inch beyond the uppers when new, for even with this allowance they will become almost flush with the uppers after a few days' use. The laced pattern is preferable, and the tongue must be so sown as to

be watertight to the top. The tab at the back should be of strong leather.

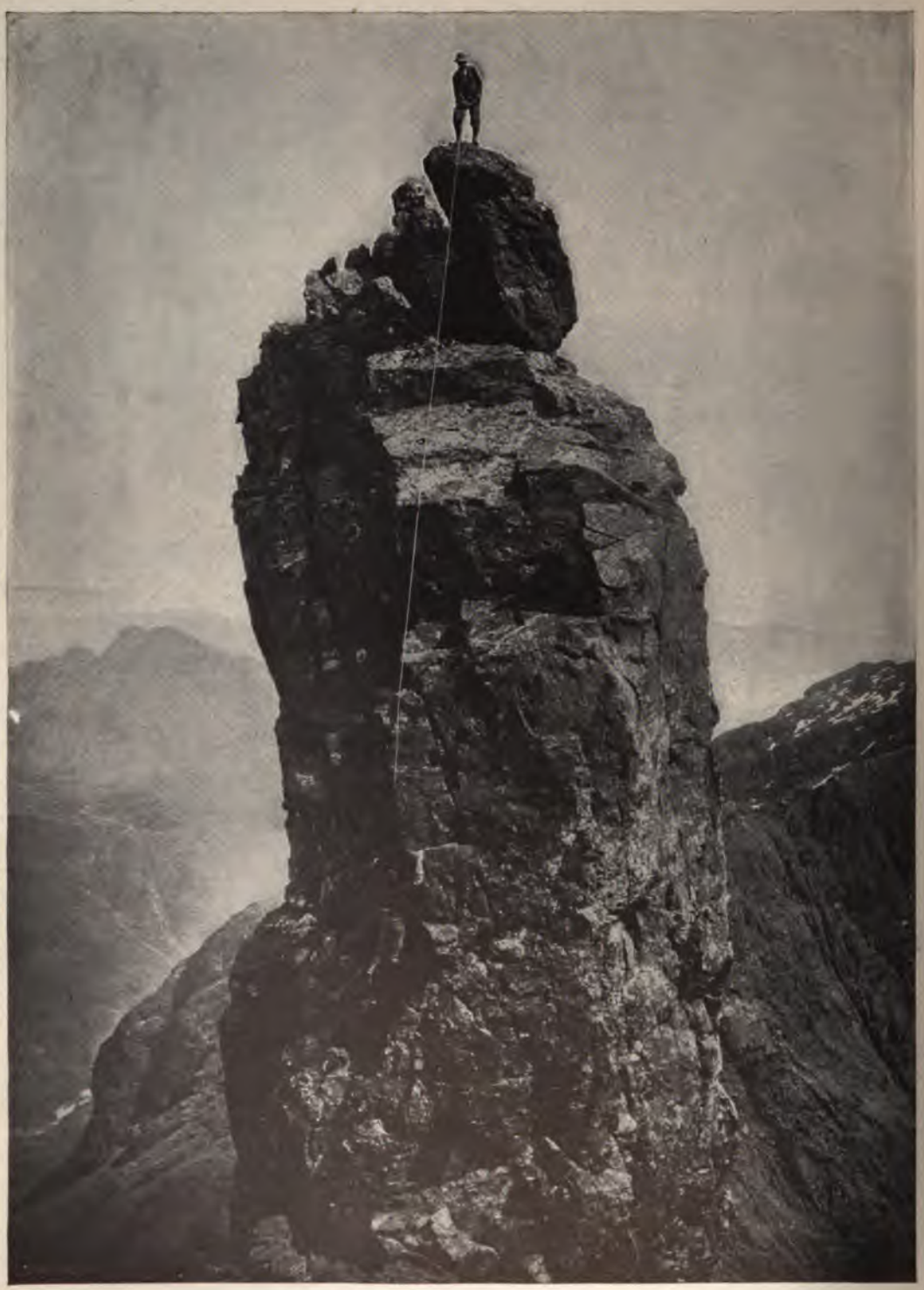
The nailing of climbing-boots is a fine art. There is no more trying experience after the first day's climbing than to find that half or even more of the nails have gone from their appointed resting-places in one's boot-sole. The greatest skill is required in driving the nails direct, for it is imperative that no hole should be previously bored in the leather, otherwise they will come out, sooner or later. This is one secret of successful nailing, and the other is composition of the leather that forms the sole. Boots advertised as having waterproof soles should be avoided, for the process of waterproofing them renders them too spongy to hold the nails for any length of time.

The outer row of nails should be of wrought iron, not cast-iron or steel; these outer nails should overlap and secure each other firmly, and should continue around the sole as far as the heel. I am strongly averse to the use of large nails for the inner part of the sole. A useful hint for drying the boots thoroughly after a wet day on the mountains is to fill them with oats, or even straw. Next morning they will be found to have retained their shape and suppleness. Judicious oiling will further improve them.

The rope may be considered next to the boots in importance. The choice of the best climbing rope is a simple matter, for there is only one make to recommend — the famous Alpine Club rope with the red worsted thread running throughout its length. It is made with three strands of the best manila hemp, specially prepared to resist damp-rot. For ordinary ascents in the Alps, not less than a 60-foot length would be necessary for a party of three, but for the more difficult courses fully eighty feet would be required. Alpine Club rope weighs only one pound per twenty feet. An almost endless variety of knots is used by climbers. The "bowline" and the "reef" are mostly favored for the two men at the ends of the rope, while the "middle-man noose" is the best for the intermediate members of the party. The purpose of the rope is to secure the safety of the entire party, particularly the less experienced members. When roped, it may be stated that the ability

CROSSING THE GORNER GLACIER
Near Zermatt, Swiss Alps

THE OLD CABANE ON THE MATTERHORN
Where many famous climbers have rested



GAINING A TYPICAL SKYE SUMMIT

The way to the top of Sgurr Dearg, Scotland

MT. SIR DONALD

The most famous peak in the Canadian Rockies

of the party is about equal to that of the leader. The rope should be closely tied about the waist.

For the ice-axe, one must go to Switzerland and the neighboring Alpine regions for the best and only serviceable specimens. The balance of the axe demands foremost notice. It ought to balance about eighteen inches from the head. The shaft should be of selected, straight-grained ash, and the head of the axe should be lined with waterproof mackintosh. This lining ought to be left loose at the top and threaded through with a tape for tying up the opening by means of a draw-string.

A small lantern, with mica sides, is desirable. Dry matches are of course a necessity. Goggles are indispensable for Alpine climbing, but the glasses should be of a neutral tint, not blue. A drinking-cup of rubber or aluminum is easily carried. A good compass,

THE PINNACLE OF BIDEAN NAM BEAN
The highest mountain in Argyllshire, Scotland

ought to be of wrought-iron tipped with steel. Careful tempering is required to obtain the necessary degree of softness. The novice starts out with his implement held more or less horizontally in his hand, but the expert carries his axe with the head tucked tightly between his arm and body, while the spiked shaft projects forward and downward. Carried thus, it can scarcely be considered one of the dangers of the Alps.

The *Rücksack* is an ordinary bag made of canvas, with adjustable leather straps for suspending it from the shoulders. Its interior mounted in a small but strong case, is another indispensable article.

The clothing throughout should be of wool, as far as possible. Certainly the underclothing should be woolen. The Norfolk jacket is undoubtedly the best form of coat and it should contain at least six pockets. A warm waistcoat is a great comfort, and the most important feature of it should be a thick flannel lining down the back. Professional guides often climb in trousers but amateurs favor knickerbockers. Personally, I prefer them unlined, for they are more easily dried.

The Alpine hat is a familiar sight, but an ordinary cap is sometimes better. Gloves wear out quickly, so several pairs should be taken. They should have only one division for all the fingers and one for the thumb. A woolen muffler is a genuine luxury, and a woolen "sweater" proves a pleasant companion.

It will readily be understood that duplicates of all articles of wearing apparel should be carried. Even if the climber is not "wet through," it is refreshing to have a change of raiment after a hard day on the mountains.

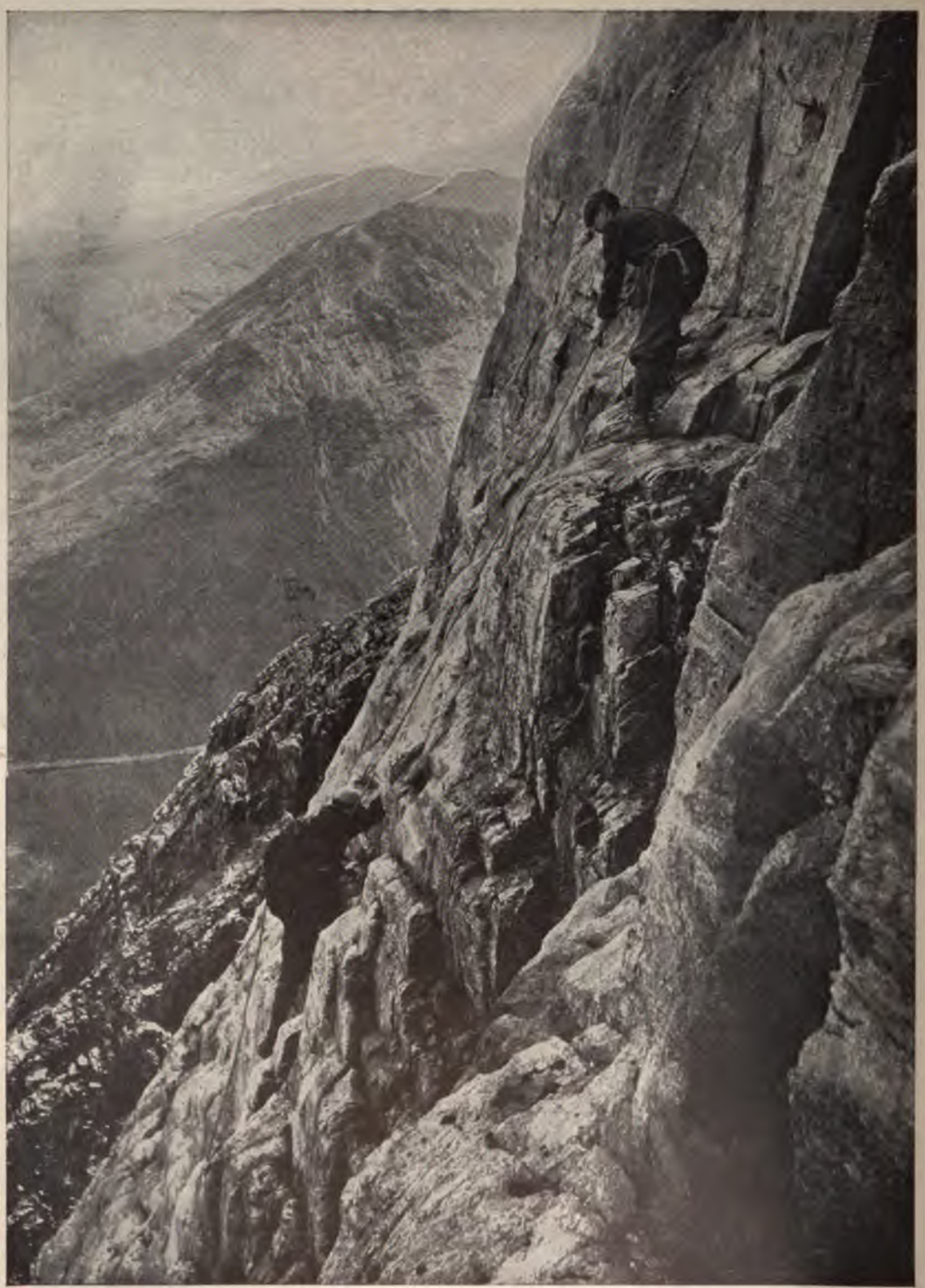
IN THE HEART OF THE CANADIAN ROCKIES
A region of magnificent scenery and many rugged, unclimbed peaks

AILMENTS AND SIMPLE REMEDIES

Sunburn is one of the most prevalent and annoying troubles. Its worst form is caused by reflection of the sun's rays from newly fallen snow, but most people suffer acutely from an ordinary glacier walk. Toilet lanoline is the most efficacious preventative, and boric acid ointment will assist the healing process if the skin cracks or peels off and the face becomes extremely painful. At the beginning of a climbing holiday, it is a good plan to wash one's face in water as seldom as possible, and shaving is an inadvisable luxury. On returning to the hotel after a few excursions above the snow-line, it is comforting to wash the face in warm milk and complete the operation by drying the tender skin with a very soft towel. Boric acid powder is excellent for abrasions and for blistered feet.

The eyes often grow painful after long exposure to the bright light on a snow-field. A few drops of a solution of cocaine will generally relieve the irritation immediately. Other simple remedies will suggest themselves.

In all sports it falls to the lot of few men to excel, and in mountaineering this is especially so. The real expert realizes better than



THE SLABS OF "THE CHURCH DOOR BUTTRESS," SCOTLAND

The most fascinating of the more popular Glencoe climbs

THE TOWN OF OURAY, IN THE COLORADO ROCKIES

Surrounded by snow-clad peaks, the highest, Uncompaghre Mountain, being more than 14,000 feet above the sea

IN THE SOUTHERN APPALACHIANS

A country of beautiful mountains where there is good exercise and little danger in the climbing

anyone else the smallness of his best efforts, and never is an expedition undertaken without his adding to the almost endless store of technical knowledge that is required if he is safely to indulge in mountaineering. The great mountaineer is the man with all his senses on the alert; and though, despite his comparative insignificance, he may revel in nature's most stupendous handiwork, he must never neglect the laws which govern his craft, nor forget for a moment the penalty of neglecting them. Indeed, it has even been suggested by a friend who was asked to read some of the instructions contained in this article that a suitable title would be "how not to break your neck on the mountain, by one who has tried it!"

THE CAMP OF A CLIMBING PARTY

On the lower slopes in the Western mountains

A FRONT VIEW OF "THE VALE"
Mr. De Morgan's house, Chelsea, London

MR. DE MORGAN'S HABITS OF WORK

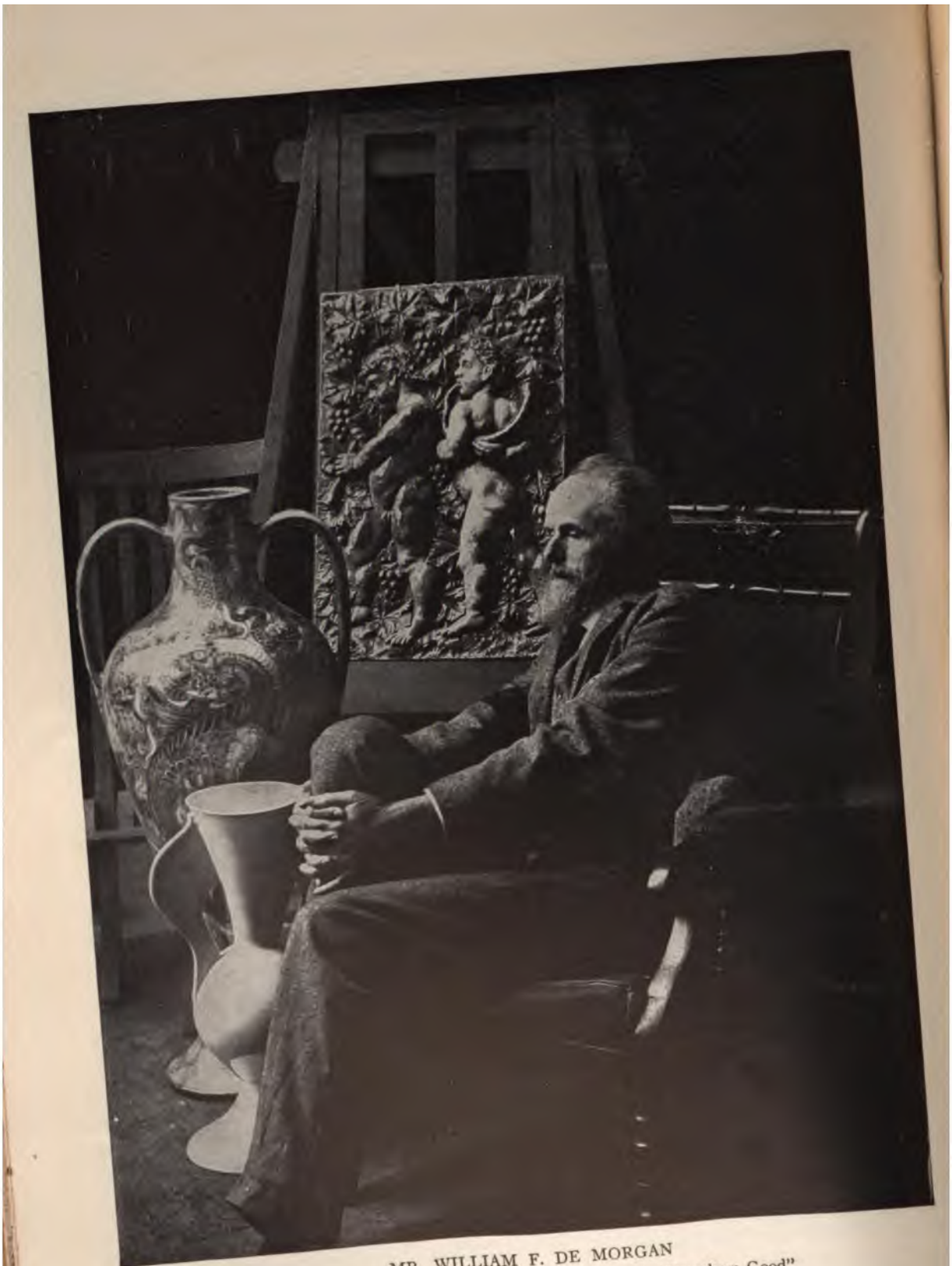
THE CAREER OF A MAN WHO BEGAN TO WRITE AFTER HE WAS SIXTY-FOUR YEARS OLD

BY

BRAM STOKER

I WAS brought to novel writing first by the desire to do a thing which I had thought I could not do. For sixty-four years of my life — so long as was possible — I waited. Then I tried. In 1904 I made the experiment with what is now the first chapter of 'Joseph Vance.' That chapter, as it now stands, is exactly as it was first written. I was diffident about it, and put it aside. Later in the year, when we were going to Florence, it came with us amongst a great mass of business papers. My wife read it in Italy, and was sufficiently pleased with it to advise me to go on. When I attempted to develop further the incipient story, I found the task a very pleasant one; and when Lossie came into it I began to get deeply interested. In this spirit I went on with the book, and finished it. I did not then think of publishing it."

"By the way, the story that got into the press here is substantially correct; that of the head of the typewriting office who complained that her girls were always reading the manuscript and weeping over it, instead of going on with their work.



MR. WILLIAM F. DE MORGAN
Author of "Joseph Vance," "Alice-For-Short," and "Somehow Good"

"The original idea of the story was that it should be a story told by an old man in a workhouse. It was to be the story of his own life, and on its bare, bald, material side was that of Joseph Vance. There was, however, no sentiment in it of any kind, no humor, no brightness anywhere. But the original conception in that form was impossible — too unutterably sad for any form of picturesque reproduction. There was in reality no such old man — except in my own imagination."

The speaker was William Frend De Morgan, the author whose first two novels, "Joseph Vance" and "Alice-for-short," achieved such instant and great popularity both in England and in America. The above enlightening statement is a memorandum made of a pleasant chat in his picturesque old home at Chelsea, England. Mr. De Morgan is extremely reticent — indeed almost shy — in speaking of himself and his work. It was only in answer to direct queries that he would unfold anything of himself or his memories. But he is a most kindly and genial man, and of very sweet and sympathetic nature, as indeed any reader of his charming work can discern for himself or herself. As we chatted in his little study looking out into a garden, large for a house so near the heart of London, his natural diffidence wore away and he revealed himself. New light came into his mind from old memories; illuminating thoughts expressed themselves in an atmosphere of color. This is natural enough in a man who had spent some forty years as a worker in picturesque designing and manufacture.

When I asked him if either of his published novels was in any way reminiscent of persons or incidents, he told me that, so far as he could recollect, the character and life of Charles Heath in "Alice-for-short" was largely reminiscent of his own life as a student. "With the exception," he added, "that Charles did more work!"

Of the characters in "Joseph Vance," he said that, when he read it over after its publication, "I found that I could pick out little bits here and there which were real and were either personal to myself or things coming within my knowledge of others." Then he made a statement, quickly but with a sincerity which there was no doubting:

"But there was no real Lossie! She came to me in the book, as though she belonged there. She really seemed to step out into my literary life, just as the girl in the story did into Joseph Vance's."

With this foothold as to the mechanism of his literary mind, I asked him if, in his work, the various combinations of characters required thought and consideration on his part, or if they in any way seemed to combine themselves. He answered at once:

"Hardly so. I had a great struggle to get 'Joseph Vance' coherent at the end. I really thought at one time that I had got into a muddle from which there could be no extrication. Happily that was not so with 'Alice-for-short.' In that case all went through very easily."

"I suppose," I ventured to suggest, "that the power of plot-making develops with exercise and experience?" He smiled as he replied:

"That is so, as far as my experience carries me. In my first book that branch of the art of novel-writing was wrought out by the sweat of my brow. I had to think of everything, consider everything, foresee everything, so far as I could. But even then there was a sad lot of loose ends and ragged edges; all of these had to be carefully labored over till some sort of unity of idea of the whole thing was achieved, in so far as it was in me to do it. When I began 'Alice-for-short' I found the value of all this labor. Things began somehow to settle themselves, and to fall into line in a natural way. It seemed to me as if the mechanical power of my mind was getting adjusted to its new work."

MR. DE MORGAN'S INHERITANCE

"Do tell me something of yourself?" I asked.

"My father, Augustus De Morgan, author of the 'Budget of Paradoxes,' was professor of mathematics at University College for forty years. All the books on this shelf were written by him." Here he opened the glass door of a bookcase standing beside the window and showed me a whole row of works whose backs and covers showed signs of time and wear. "Here is the 'Budget.' It is a record of all the circle squarers and longitude finders. A sort of history of all the scientific 'freaks' and 'cranks' and such like.

"My mother was the daughter of the Rev. William Frend, who left the Church of England to join the Unitarians. Later on he became an actuary — one of the first of that calling;

so you see that he, too, was a mathematician of no mean order. He did the actuarial work for the Rock Insurance Company. That was about two years before Waterloo. Here is a work of his, 'Evening Amusements,' written late in his life. So that, also, may be a hereditary trait in his grandson. You can guess how far back he went when I tell you that he was Second Wrangler and Smith's Prizeman nine years before the French Revolution."

"And your own education?" I queried, for it seemed that this subject should follow next in sequence.

"I went to school and college at University College, Gower Street. Then I drew at Cary's old school in Bloomsbury. This Cary was the son of Cary the translator of Dante. My schooling there was before 1859. From that I went to the Royal Academy Schools. I was then twenty years of age, having been born in November, 1839. I worked at the Academy schools up to 1863 or 1864, when I began to devote myself to stained glass and afterward to ceramics. This last was in 1872. I did not commence to write books till 1904. I could never, I should say, call myself a painter.

HIS VOCATION—CERAMICS

"The artistic work which I carried on for so many years was what is now known as the De Morgan Lustre and Persian ware. In its own way it was, I may say, quite original. But I have no right to claim invention or re-invention of lustre. The method of doing this had been rediscovered in Italy in 1856; and many pieces of this ware were exhibited in the Exhibition in Kensington in 1862. This exhibition of 1862 was a sort of echo of the Great Exhibition of 1851. It was at that time intended to have a repetition every tenth year; but in 1861 things were not quite ripe for it, and so it was postponed for a year."

"Did your plastic ability ever take any other form than that of ceramics?" I asked. He answered me with a smile.

"I have often made inventions, if that is what you mean!"

"Tell me some of them?" I asked.

HIS AVOCATION—INVENTING

"I think the most important was a new duplex gearing for a bicycle. This is actuated pneumatically. There are two independent gears, wheels, and chains. By pneumatic force one gear is changed to another, without any appreciable amount of friction being generated. This I protected; and I kept the patent alive as long as I could afford it. But after I had spent some £300 on it, I allowed it to lapse. I was surprised as well as disappointed that no manufacturer took it into use, for it is a really good idea." He took me out through the garden to a sort of lumber-room, and there showed me a bicycle geared in the way of the patent. It is a really admirable scheme, and I think it must yet come into use. This particular setting was of the earlier pattern. There is a separate gearing on each side of the frame, high on one side, low on the other; but he has since arranged both to be on the right-hand side, so that they can be enclosed in the same gear case. At the end, on each side of the handle-bar, is a rubber bag; squeezing one makes the wheel cease to be "free," the other changes the gear. When we returned I asked him:

"Have you made other inventions?"

"Oh yes, lots of them; but none commercially successful. Perhaps the most important were: First, a sieve for refining large masses of clay; this I used in the pottery work with great success. Another was a smoke-consuming firegrate. But these things I have let slide since I have devoted myself to literature as a pursuit, which I trust to follow for the remainder of my days."

"May I ask you," I suggested, thus happily recalled to the main subject of my visit, "as to your character-creation? Do your characters come from your brain full-fledged, or do they grow from small beginnings and become more and more real as the story progresses?"

"The latter altogether. So far as I can remember, for it is hard to recollect the exact beginnings of characters, the process is a sort of nebulous idea, with a concrete heart somewhere in the mist. A heart which can from the first illuminate in some degree, and which can beat in time and grow more and more and more vital, till at the last it emerges from the mist. And then, strangely enough, you are not astonished when you find that the creature which has newly declared itself is a friend of your lifetime, of your dreams. When this point is reached the characters often and even speak for themselves. At it seems as if one can almost hear their words."

"Do they ever," I asked, "get away

you at this stage; do they ever take, so to speak, the bit in their teeth and bolt?" Once again he smiled that understanding smile which is the sign of sympathy; that smile which Mrs. Riddell, author of "George Geith of Fen Court," described a generation ago as "beginning at the eyes and spreading to the rest of the face."

"I would n't undertake to say that they don't; and I must say that I don't object when they do. For this often leads to a new line of thought. It seems to me often that it is such divergences that make for the freshness of a story. After all, if the characters are true to nature, with just that touch of individuality, even if it be eccentric, which makes people interesting in real life, they can give a charm of their own in literature. And if these fictional characters have fictional life, why should they not use it fictionally in their own way? We talk, now and again, of imaginary characters as 'living.' Surely it is this quality, if any, which makes them so!"

THE MAN AND HIS HOME

Mr. De Morgan has a most interesting physical personality. He is in height about six feet, though this seems lessened somewhat by his tale of years. He is of slight build, with shoulders square. His head is well balanced on a fairly long neck; sign of high type. It is well shaped; very wide and full behind the ears, with bold forehead, wide between those ridges which phrenologists call the "bumps of imagination." These manifestations are sufficiently marked to be noteworthy. The top of the forehead rises in a steep ridge of bone, manifestly of considerable strength, for it once resisted, without evil effect collaterally, a blow from the swing-back of a heavy door which stripped away the skin. The eyebrows are fairly thick, but nothing out of the way. His hand is characteristic—the fine, dexterous, sensitive hand of an artist skilled in plastic work. He has a strange story to tell of a prediction, based on the lines of his hand, made long ago and since justified. But this he wishes to tell himself in his own way and at his own time.

He lives when in London, for he spends most of his time now in Florence, in an old-world corner of Chelsea. His home is one of the few survivals of an older period; one might almost call it the "rural" period of Chelsea. And even it is doomed, for its time is coming for alteration. "The Vale" is an eddy of the stream of the King's Road, the great East-and-West thoroughfare of that part of London. In itself it is secluded, but the roar of traffic passes over the line of houses which stretch between it and the great highway. The shriek and roar of the motors and the pounding of horses' feet on the hard asphalt come modified and almost muffled. But they come; and when such sounds are strenuous and perpetual, within their radius is no place for art. The house is a fairly old one, all ramshackle, with some queer little rooms and alcoves made in the process of "improvements" at various times. It is just such a house as should be found in a quiet suburb. Attached to it is a large studio used by Mrs. De Morgan who, in her maiden name of Evelyn Pickering, made distinguished success with her pictures, as she has done ever since. She was one of the exhibitors at the first exhibition of the "Grosvenor Gallery" in the early "eighties." She has also exhibited at the New Gallery. A year ago she had a "one-man" exhibition at Bruton Street which was criticized most favorably by the press. She also exhibited at Dresden, Cologne, and other foreign cities in turn. One of her pictures, "Life and Thought," from Tennyson's poem, "Life and Thought Have Gone Away," is in the Liverpool Art Gallery.

Here in the studio, by the half-light of the coming evening, are seen many of her pictures or easels. They represent her specially imaginative school of work. Her subjects are varied, and the names given them explain generally their meaning: "The Gilded Cage," "The Cadence of Autumn," "The Hour-Glass," "The Light Shining in the Darkness," "Port after Stormy Seas," "Eve in the Garden of Eden."

Throughout, the house is full of beautiful and interesting things. It is quite a storehouse of artistic curios; among them are many of Mr. De Morgan's own ceramics, works of supreme and delicate beauty.

HIS SIMPLE METHOD

Before I came away I asked Mr. De Morgan to tell me something of his method of work. I compress his answers to my queries into a single statement. I mention this lest it should seem egotistical on his part to say so much of himself. This would be an unjust suspicion of anyone; but especially in his case, for he is the most modest of men. I look on

it as a grave courtesy on his part that he broke through his natural timidity far enough to answer so many of my seemingly impertinent questions.

"I make no scenario. I just go on finding, as one often does, such inspiration as is necessary from my pen. I find that the mere holding of a pen makes me think. The pen even seems to have some consciousness of its own. It can certainly *begin* the work. Then I forget all about it, and go on wheresoever thought or the characters lead me. I think I work best in Florence, where it is always quiet and where there is something stimulating in the air. It is certainly stimulating to the nerves; perhaps it is to the intellect also. I work there all the winter through. My time for beginning work is after breakfast. I work all day, off and on, and sometimes a little in the evening. Weather does not affect me, as all my work is done indoors."

Having mentioned the subject of America to him, he said, and said with considerable feeling:

"It has been an extraordinary pleasure to me to find that, Britisher born and raised as I am, I can still find American readers. I assure you that the receipt of assurances to that effect from remote regions out West that were still in the wilds when I was old enough to read Fenimore Cooper and Catlin have been to me a matter of rejoicing and bewilderment. All the more, because it shows that politics and geography have completely failed in making foreigners of two halves of a divided race that speak the same language, and will do so as long as each adopts the neologisms of the other as fast as they come from the mint!"

A MODEL FOR MANY FAMOUS PAINTERS

THE CAREER OF ANTONIO CORSI, WHO HAS POSED FOR MANY OF THE MOST CELEBRATED MODERN PICTURES HERE AND ABROAD

BY

VIRGINIA CALHOUN

THERE could be no trickier register of studio temperature than an artist-model, were he so minded. He has the opportunity of seeing artists as they can never see themselves, though they studied their mirrors all day. There are models and models. Antonio Corsi is a model model. He has the *naiveté* and subtlety native to primitive beings. At the same time, he is responsive to every thought-wave that plays upon him, and reflects back that thought in facial expression, gesture, and in pose with telepathic rapidity, or sustains it for an amazing length of time.

Corsi was born at Atina in Italy. His father was a soldier of the great Garibaldi and the boy was destined for the priesthood. Poverty in the family, however, drove him to earning a living at a very early age, and with his father and brothers he took up the hazardous occupation of a wandering street-singer. Chance led them to Dover, England, where the little family of Italians never failed to gather listeners from among the tourists with whom the town is crowded.

Among the group, one day, was a man who may not have been drawn by the rhythmic beat of their music, nor to look with idle curiosity upon wayfarers with such scanty chance to earn a livelihood, nor yet perhaps with annoyance, that such nuisances were permitted, but who looked at them with the artist's eye, seeing the spirit of things. This man was Felix Moscheles. It was Antonio that Mr. Moscheles saw and watched until the little company were bidden to "move on." His face was aglow with goodness and intelligence as he spoke to Antonio in Italian:

"What is your name?"

"Antonio Corsi, sir."

"Will you come with me to my studio?"

"Ask my father, sir."

"What do you wish with my son in your studio?"

"I wish to make pictures of him. I will pay him money every time he sits to me."

When told how much he would receive each time they were rejoiced.

Shortly after this encounter the Corsi family went to London. They took a lodging-house in the Clerkenwell district — at once the richest and the poorest quarter of London. The boy immediately went on duty in Felix Moscheles's studio, and then it was, as a child of about eleven years, that he began his long and varied career as artist-model.

This career he carried on for many years, in England sitting for the most famous artists and in the most renowned art schools. In France he was model for MM. Jean Gérome, Bouguereau, Alphonse Le Gros, Constantin Mennier, and at the Atelier Julien and the École des Beaux Arts. He also traveled with some of his more regular patrons.

GETTING COSTUMES

In these travels he was always on the lookout for costumes characteristic of the locality in which he was stopping. During a sojourn in Cairo with his patrons, Corsi, as usual, was out rummaging about in that "old cradle of a remote civilization," when unexpectedly he came upon a fine Arab costume. It was a heavy cloth, a rare turquoise blue — but alas, on the back of an Arab. The two men spotted each other at the same moment. They stopped short. One look at Corsi, his blazing eyes, his flying hair, his energetic earnestness, that easily read viciousness — and the descendant of Egypt's civil ancients turned to run. Corsi seized him and tried to make him understand by sign-language, that he wished his clothes. But the Arab escaped him and fled in dismay. Corsi followed, crying "Take off your clothes, give me your clothes, I need them — I will give you money for them."

Corsi, fleet of foot as a rabbit, was fast closing in on him when the Arab suddenly turned, braced himself against a wall, and whipped out a savage, curve-pointed, Arabian dirk. Corsi came up to him, and fortunately for the future of the world's most famous artist-model, Mr. Moscheles, too, appeared on the scene. The artist explained to the infuriated Arab that Corsi only wished to buy his dress. But the Arab, forever suspicious of the strange man's intentions, contended that the shops were full of fine new costumes. That new costumes were just what Corsi did not wish was explained to him. Still he doubted. Finally, at the sight of money, he was persuaded to yield. He handed over not only his dress but his red and white turban, his great yellow boots, a belt full of crooked swords, scimitars, old-fashioned pistols, and into the bargain the vicious dirk. This superb Arab dress afforded Corsi one of his most famous poses, "The Arab Sheik."

On their return to England Corsi gave many more sittings to Mr. and Mrs. Moscheles. With him as a model they painted in addition to the famous "Beggar Boy," the "Fortune Teller," the "Shepherd Making Love," and many Egyptian pictures which now adorn their several homes in England and in Italy or have been sold at the private sales.

SITTING FOR PRINCESS LOUISE

Corsi's first encounter with royalty was as a model for Princess Louise, the daughter of Queen Victoria.

"She first commissioned me," he says, "to sit to her at the suggestion of Mr. Seymour Lucas, R. A. Her Royal Highness had conceived her idea for the 'Colonial Memorial.' There is in the Royal Academy an embalmed man for the benefit of the members and students. He is under lock and key in his glass case. An outsider would not be allowed to even sketch him. Under no circumstances could this model be removed from its place. Now the Princess got the idea of modeling her group from this embalmed man. She had a plaster cast made of him and taken to her studio at Kensington Palace. There she worked out her idea until she got a good expression of what she wished to do. Then she called in Sir Lawrence Alma-Tadema, Mr. Seymour Lucas, and Mr. Alfred Gilbert, the sculptor, to advise with her upon the work. The idea of the subject pleased them all. But Mr. Seymour Lucas said, 'If it is your idea to execute this work simply for the pleasure Your Highness will find in putting into expression your imagination's creation, then I say, since you ask me, finish it as you have begun. But if it is for competitive or salable art work, then I should say, your work up to now is lost time.' "

The Princess replied, "What do you suggest, Mr. Lucas?"

"I suggest," he answered, "that you secure a life model for your work."

"I know of no model who would suit my purpose," the Princess explained.

"There is a model that would be the very man for your work, an Italian, Antonio Corsi," said Mr. Lucas.

"Very well, kindly give me his address, Mr. Lucas."

"As a result of that interview," says Corsi, "I was booked for the most interesting sittings that I have ever had.

"The first thing I noticed in her studio was a large wooden cross. Including the pedestal, it stood about nine feet from the floor. There were no pillows or silken draperies about. It was a clay-begrimed, workman-like place. The Princess said, 'Take off your clothes, Corsi, and get up on that cross, and let me see your figure.' And I did. I was soon upon the big cross. The Crucified One had been a frequent pose for me. I felt quite at home upon the cross.

"On posing days at the Palace, my meals were always served to me either in the studio or in a room by myself.

"When tea time came, Princess Louise would always have me take tea with her in the studio. When I was tired hanging upon the cross, she would light a cigarette for me and put it into my mouth. This kept me from disturbing the pose. I liked this very well, but I'm afraid it developed the tired microbe in me prodigiously."

SIR EDWARD BURNE-JONES

Sir Edward Burne-Jones retained Corsi as model for seven or eight years, off and on. During that time he sat for many sketches and studies, also for six of the artist's famous pictures. They were "St. George and the Dragon," "Le Chant d'Amour," "The Crucifixion," "The Six Days of Creation," "The Merciful Knight," and "Love Among the Ruins."

Corsi says: "Sir Edward Burne-Jones always spoke to me in Italian. I remember him very well. He was a man of medium height with a clear, sweet, holy, blue eye. His hair was gray; he wore a full beard. He was always a kind, courteous gentleman, and simple in his ways. He always kept a lot of pictures on hand to be done. They would be stacked against the walls, all around the studio. His studio was his workshop. It was bare and severe, only the simple necessities for his work were found there.

"Sir Edward was the life of the New Gallery, London. He also inaugurated the Grosvenor Gallery. There he hung, "The Wheel of Fortune." This was the most talked of picture of its time. My posings for that work were some of the most difficult I ever gave. They could hardly be called sittings or standings either, for that matter. They were rather hangings and stretchings and twistings. Sir Edward had constructed in his studio a huge wooden wheel, ten or twelve feet in diameter. I was strapped nude, with my back to the flat tire of the wheel. Then he said, 'Now, Corsi, imagine that you are a very wicked and bad man—that you are to be tortured to death upon this wheel.' I can tell you, it was n't hard to look the part, as the big wheel began to turn. It was turned every half-hour, during the whole morning. The impersonation was only short of the real torture-rack. Sir Edward Burne-Jones painted in the whole action of that picture that morning. He stood close to his easel, scarcely leaving it during the whole making of the picture. And he smoked furiously all the while as the paint splattered everything around him. We had only one morning of the awful turning of the wheel. It was too exacting for me to endure it again.

"The great picture was finished. Later I saw it hung at the inauguration exhibition of the Grosvenor Gallery. It created a sensation. People looked at it with admiration, and seemed to be deeply stirred by it. I could only have sympathy for anybody lashed to any wheel whatsoever."

MR. G. F. WATTS AND HIS STUDIO

Mr. Watts's studio was made for work — gigantic work — both in painting and sculpturing. It was moderately large in size, dignified and severe. The entire place spoke of the dwelling of ecclesiastic, scholar, and artist.

"My sittings to the great Watts," says Corsi, "came at the very beginning of my career as model. I posed for one of his great pictures. It was his famous 'Sir Galahad.' I was delighted to find a real and a splendid horse waiting for me one day in Watts's studio, for the 'Sir Galahad' picture. We were great friends at once, Watts, the horse, and I. You must know Sir Galahad waited be real horse, truly beloved by his master that the creature, in his turn, waited with strength and affectionate confidence his ter's wish. The action of that pictur

most real impersonation. When Watts was painting in my figure for the Knight, I noticed he did not seem inclined to put in my own features. I asked him why he made my face so womanish. He replied, 'There is to be a woman's face in the picture, not yours. The Knight will have your body however.'

"For Sir Galahad's face he painted in the face of Ellen Terry, his one-time wife. But all the same, I could always see that my face had gotten pretty well into his brushes. I remember Watts as a fine old man, kind and cordial. He stood or sat near his easel while painting, and always wore a black or red Venetian skull-cap. This heightened his striking resemblance to a cardinal. He was thin, tall, and a powerfully intellectual man. By common consent, Watts is called 'The Father of English Painting.'"

SIR JOHN EVERETT MILLAIS

Antonio Corsi says, "I sat for two of Millais's pictures, 'The Runner' and 'The Order for Release.' Sir John Millais was a large man, rather a slow painter, very blunt, rarely having anything to say to models or anyone else during studio hours. He resembled Lord Leighton and Sir Edward Poynter in the fastidiousness of his dress. He never appeared in the painter's blouse. He painted very carefully, the paint was never seen to fly in his studio. His work was done close to the easel, sometimes he sat to do it.

"In his picture of 'The Runner' he simply gave me the skin of an animal to be used as drapery, and did not explain his intention of the picture.

While painting 'The Order for Release' he did n't say much to me either. After he had painted in my figure I said, 'What is the meaning of this man, your Lordship?' He said he would explain it later. This he did not do until after the other figures were all put in, and I again asked, on better acquaintance, the meaning of the man. He said, 'Corsi, this man was supposed to be a deserter. You see he is one of the Scots Guards. He was absent for some trivial cause, probably from roll-call. According to military discipline, he was held as a deserter until he cleared himself. You can see by the picture that he was thrown into prison. His wife has gone there to greet him, with his order for release.'

"'It would have been a good thing,' I said, 'if you had told me this story before. Then I could have helped you more in the action of the picture.'"

SIR LAWRENCE ALMA-TADEMA

"I applied at least five times to Sir Lawrence Alma-Tadema before I got sittings with him. But when I did get at him he retained me for three years.

"When we came into his big studio, Sir Lawrence said to me, 'Take my pallette and brushes and come along.' We went into the garden studio. It is a cozy place with draperies and little pictures and sketches. There we worked on the 'Violinist' until noon. It was a picture of a street-musician, and Sir Lawrence painted me in the suit I wore that morning.

"Sir Lawrence was a slow painter, a great smoker, and silent when at work. I have heard said, though, that he is full of stories, good old Dutch jokes, with his painter friends. He works near his easel, leaving it but a few times to study his work. Lady Alma-Tadema always wears the artist's blouse, works near her easel, and is always a bright and interesting talker. She is no smoker, although she is part Italian, and speaks the language of Italy as an Italian. Everyone says she is one of the cleverest women in Europe."

MR. HOLMAN HUNT

"Holman Hunt was one of the artists who refused titles. I sat to him only five or six times. He would make the sketches of his pictures in charcoal, and then put in the detail next time with lead pencil. From these sketches he built his pictures. Then once before the picture was finished he would have the model come again. This was to get the action of the picture.

"When I sat to him, he was very old and quiet. He scarcely ever had visitors. He was not jolly with his models when I knew him. He was a very fine-looking old man, with a long, straight beard. In his studio and when at work he wore a painter's jacket of brown color, and always a skull-cap. He was a great man for brown. The only signs of happiness and cheer in his studio were his hard work and his beautiful pictures.

"The first time I called upon Holman Hunt armed with a card of introduction, he said, 'Call again within a few weeks, I think I shall need you.' When I presented myself the second time, he said, 'Come in. I wish to make a drawing of you for a picture I have

in mind. We went into his studio, and he said, 'Put on that gown.' It was a long loose drapery gown, of gray Indian cotton stuff. Then he twisted the chain of a curious lantern upon my left wrist. Then he told me the position to take, and he began to make his first sketch for his well-known and well-loved picture, 'The Light of the World.' The original canvas measured six feet by three feet. Holman Hunt said to me as we were getting ready to begin, 'Now, Corsi, you are going to be the Christ. You may think you do not resemble the Divine One very much. Don't let that worry you. I'll see to that.'

"The other picture for which I sat to Holman Hunt was 'The Shadow of Death.' Once more I was called upon to represent the Christ. But not upon His cross this time. The picture is supposed to be an episode from his life as a young man in His father's carpenter-shop. One afternoon in the shop, in the midst of work, the Lord had stopped the planing and hammering of the boards, and lifted upright His tired body and hands. The sunlight streaming into the little room, full upon Him, His shadow is thrown into the space without, all unconsciously it darkly outlines His figure as it was upon the cross. Thus its title, 'The Shadow of Death.'

MR. EDWIN A. ABBEY

"As soon as Mr. Abbey got his Boston commission, he built a large studio near his house, Morgan Hall in Gloucestershire, where he did all of that important work. Across one end of this studio runs a long, covered corridor where the 'Holy Grail' costumes were hung. There were two rows of them twenty feet long. Connoisseurs of mediæval tailoring and amateurs of mediæval armory would have been delighted to have seen the making of these important adjuncts of those great pictures. Mr. Abbey designed all of the costumes and they were made by a professional costumer, assisted by Mrs. Abbey. The costumer was brought down to Morgan Hall for this purpose, so that everything could be made directly under Mr. Abbey's supervision. All of the armor worn by the various figures you see in the pictures was designed by Mr. Abbey and made in the village of Fairford by an old armorer living there. I would fetch Mr. Abbey's designs to the old workman at his forges and he would fashion them to fit me, as I was the one to wear them all.

"On the first day I posed for Mr. Abbey, when lunch time came, Mrs. Abbey came into the studio, with her maid, bringing lunch. During the whole time I was there she did this. She said to me, 'Now Corsi, whether you remain with us a long time or not, anything you wish, or anything you wish to ask, come to me. I do not want anything to interfere with Mr. Abbey's work."

"Mr. Abbey is a rather broad, short, strong-looking man with a medium dark complexion. He always wears glasses. When he paints he has no particular characteristics. He does n't wear anything in particular, does n't use anything in particular, only the sort of things an artist might use. He does n't smoke, he does n't drink. He paints near his easel and does n't go back and forth much to examine his work."

Corsi posed for about sixty figures in the Holy Grail pictures for the Boston Public Library, and for the picture "O Mistress Mine Where Are You Roaming." After finishing an engagement in London he went back to Mr. Abbey for another five weeks. During that time Mr. Abbey finished all of the panels for the Boston Library, and also his "Penance of Eleanor," Duchess of Gloucester. It was upon this work that Mr. Abbey was made an R. A.

When the model was going Mr. Abbey said: "Corsi, do you know Sir Henry Irving? He is a great friend of mine. He is now producing 'King Arthur,' the same thing we have been doing here in the studio. He is at the Lyceum Theatre. In one of the scenes he has a big church celebration. If you go to see him, he might put you into some of his pictures. As a professional model you would be better than anyone he could get."

"All right, Mr. Abbey," said Corsi, "if you 'll give me a card. I'll go to see him as soon as I go up to London."

Mr. Abbey gave him the card and he went to see Sir Henry Irving.

"I was admitted," he says, "at once on the presentation of Mr. Abbey's card. Sir Henry said to me as soon as I came in, 'So you are Antonio Corsi, and you have been posing for Mr. Abbey's King Arthur pictures? That must have been very interesting.' Then he showed me a big picture, and said, 'Could you give me the same pose there that you did for Mr. Abbey?' Of course I could and of course I did. Sir Henry engaged me for three

weeks to take front places in all of his big stage pictures in that play. This was a new and very interesting experience for me."

CORSI QUITS EUROPE FOR AMERICA

A time came when Corsi felt impelled to go to America. Since his arrival some ten years ago, he has given sittings for the leading artists in the United States. It has been said that "no public building of this decade is complete without at least a dozen figures of Corsi painted upon its walls." By the artist's brush, he is perpetuated in our country's legends, in historic scenes both sacred and profane, as well as in allegorical stories, and in the fantastic imaginings of our artists within the walls of our public libraries, churches, theatres, municipal buildings, palatial hotels, and private residences with a frequency that almost defies enumeration. He has also done extensive service for the outside covers and the inside illustrating of our leading magazines. In this work he has run the gamut from George Washington to the aborigines of our country.

He has also given extensive book-illustrating sittings. In these he represents with equal satisfaction the hero, the villain, and the between-people in the story.

MR. JOHN S. SARGENT

"I posed," he says, "for eleven of the sixteen Prophets done by Mr. Sargent for the Boston Library frieze. I called on Mr. Sargent with a card of introduction. The moment he saw me he said, 'Yes, I can use you. When can you come to me?' I told him and he said, 'All right.' That ended our interview. When I called a few days after, we went to work. 'Take off your clothes, Corsi, and put on the costume.' I put it on, and then he began the big and important work.

"Mr. Sargent says that he would rather paint a dozen men than one woman. Any professional can tell that with one look at his portraits. I suppose that is because women are sometimes so fidgety. You have heard the story of the woman he was painting, who fidgeted her mouth so much? She wanted it to look pretty. She fussed and twisted and pursed her lips, and then she fussed and ununtwisted and unpursed them until finally Mr. Sargent said, 'Well, madam, perhaps we had better leave them out altogether.'

"He recited poetry a great deal during my rest time. Sometimes he would scarcely speak out loud and sometimes he would say it right out fine and loud. He spoke lines from Dante, Goethe, Schiller, Molière, Shakespeare, Milton, Tasso, Moses, David, and so on. At first I thought he was making it all up himself, but I soon found that I was wrong. Mr. Sargent uses a very wonderful blue in his painting. It is made of the lapis-lazuli crushed to a fine-as-flower dust. This costs a guinea for a very small tube. It is a glorious blue and it seems to be his favorite color.

"While I was posing to Mr. Sargent, very often Mr. Whistler used to come to his studio. But I never posed for Mr. Whistler. I noticed Whistler liked to be in and out with people. I heard him tell this story about his returned letter several times in Mr. Sargent's studio. Everybody knows it — how, when he went from Paris to London, a letter was sent to him addressed in the care of the Royal Academy, and how that institution returned the letter to Paris marked "not known here." He thought that such a good joke that he carried the letter around and showed it to people and told them about it. Of course he was at that time one of the most famous artists in the world.

"For the Prophet work, the most exciting time I had was when I posed for Elisha. This was the fourth prophet. Mr. Sargent made this particular study in the nude first. Elisha was supposed to be very gaunt and thin. In order to give the right expression to the body and the right action to the pose, I would take for breakfast only brandy and eggs. This was so I could make my body high and gaunt by drawing in deeply the abdominal muscles."

MR. EDWIN H. BLASHFIELD

Corsi has posed for Mr. F. Luis Mora, for Mr. Frank Stokes's work for the Museum of Natural History in New York, and for many other artists.

"I have sat for all of Mr. Blashfield's important murals since my arrival in America," he says. "I was the original for two figures in his panels for the Congressional Library, Washington, and I sat to him for his mural painting 'Westward' in the Iowa State Capitol and for his decoration in 'The Uses of Wealth.'

"Mr. Blashfield seems to paint for the love of it. His studio is simple, like a workshop. There are his step-ladders and finished and

unfinished canvases everywhere. While he paints he talks about things he likes best, which is principally Italy. He loves Italy. He loves its blue skies. Often he has asked me how I could be contented away from Italy."

CORSI'S STUDIO IN NEW YORK

Corsi's studio in New York is quite a museum of antique and modern treasures. The ceilings, the floors, and the walls of the two big rooms are packed. They are the trophies and artist's properties collected during his twenty-seven years of sittings. Often they are gifts from the artists to whom he sat and show the unusual relation of friendship that exists between this model and his patrons.

Corsi often wears one of his historic costumes when he receives his guests at his studio. When the art-students are visitors there, they too go in for the costumes, for Corsi has something like a hundred complete suits with footgear, head-gear, arms, armor, etc., etc. These costumes he collected from the people of the different countries that he has visited as model and companion with his various patrons. During such travels with Felix Moscheles, Frederick Goodall, and Baron Arild Rosencrans he secured costumes, Greek, Egyptian, Arab, Florentine, Persian, French of various centuries, Spanish, Mexican, Dutch Cavaliers, Scottish, and several handsome Chinese costumes among many, many others.

The American Indian is one of his most successful characters. "My first Indian experience," he says, "was when I posed for Sir Sidney P. Hall's famous picture of the 'Canadian Indians Making a Treaty of Peace with the British.' The Indian character and costumes suited and pleased me at once. Those grand old chaps, the Indian chiefs, seem to come to me out of the earth and air and sky, and, too, from somewhere away back in my own being — almost more easily than any other characters. That is one of the things that makes me partial to American artists. The great men here must and do deal with these grand aborigines. In fact, the American Indian more distinctively than any one other personality is bound to make up the warp and woof of the arts in this country — literature, drama, music, as well as painting and sculpture.

By turns, Corsi, the famous impersonator, becomes in look, in mien, in spirit, a Savonarola or a North American Indian, a Mexican ranger or a sixteenth century cavalier, a soldier of the Sultan or an American "cow-puncher." And with equal ease he turns himself into the Crucified Lord, a falling angel, or the devil, and sometimes even appears as a woman.

THE NEGRO AS A BUSINESS MAN

BANKS AND COMMERCIAL SUCCESSES THAT SHOW THE PROGRESS OF THE RACE

BY

THOMAS J. CALLOWAY

IN 1881 there was organized in Richmond, Va., the Grand United Order of True Reformers, by Mr. William W. Brown, who was born a slave in the mountains of Haversham County, Georgia, in 1849. He had had a fair rudimentary education, and during the reconstruction period in the South had been a teacher, a temperance advocate, and a political worker. In this varied life he perceived the value of an organization that would combine the popular fraternal society of the Negro with a business corporation, so as to appeal to the instincts of the race. That he was a philosopher is attested by the rapid growth of the organization, shown as follows:

1881. The Grand Fountain organized with 100 members and $150 cash.

1907. The Grand Fountain membership increased to 80,000.

Sick and death benefits paid to date	$2,340
Paid up capital of the savings-bank	100
Deposits in the savings-bank	3?
Real-Estate Department's holdings	3?
Value of property of Old Folks' Home	3.
The yearly business of five stores	49

There had been many mutual aid brotherhoods and a horde of secret and fraternal societies among the colored people but the conception of a strong national organization with its permanent and ruling "Grand Fountain" to be a depository of the several "district fountains" and to be the permanent meeting place in annual conventions was a new creation and it has stood the test of time.

THE BEGINNING OF THE GRAND FOUNTAIN

The Grand Fountain of the United Order of True Reformers began as a national organization with permanent headquarters in Richmond. It was incorporated under the laws of Virginia and began business in 1881 with $150. This Grand Fountain is the permanent and irremovable head, no matter how strong the district "fountains" become, and in order to provide against insurrection and sedition from factional fights, it was provided that all district "fountains" should deposit their money in Richmond with the Grand Fountain, it being rightly determined that with the money of a district "fountain" tied up in Richmond, that "fountain" would not so quickly separate itself for any supposed grievance. Whenever a "fountain" was organized it was necessary to subscribe to this provision before initiation. With this fundamental provision securely established, agents went forth and established district "fountains" in nearly all of the states and territories in which there is any considerable number of Negroes. Argument was made to the districts that by sending their money to Richmond they ran no risks of the defalcations of local treasurers, that they got the support and backing of the Grand Fountain in case of any unusual number of deaths or a specially large number of sick members, that they would share in the earnings of the Grand Fountain in its investments and have fellowship with a national body of men looking after their racial interests, and prepared to give financial aid as well as moral support where they deemed proper. This plan proved popular as presented by Grand Worthy Master Brown and his successor, the Rev. W. L. Taylor, and the membership grew rapidly. As a consequence money began to flow into Richmond. This money was deposited in Richmond banks or invested in good securities and real estate, the balance on hand being always kept large enough to meet death claims and other demands.

In 1887 an incident happened that, like many other supposed misfortunes, proved a great blessing. Some money of a subordinate "fountain" was temporarily deposited with a white merchant in Charlotte County, Va. A lynching occurred in the community and, while the feeling between the races ran high, this merchant dropped a remark about the amount of money he had, intimating that the Negroes were combining and raising money to use against the whites. The Grand Fountain thereupon decided to ask the state of Virginia for a charter for its own bank. Upon getting the charter it organized the savings-bank as a department, and this bank, which was the pioneer of thirty-three other Negro savings-banks that are now doing business throughout the country, has done a total banking business of $16,308,824.86. The capital stock was placed at $100,000 — 10,000 shares at $10 each — and members only were permitted to hold it. Members were also invited to become depositors, and so it happened that the united savings of an ever-increasing clientage poured into the coffers of the Grand Fountain. The bank found many profitable ways to employ this money, particularly in discounting paper among the colored people. In the panic of 1893 this bank was the only one in the city of Richmond which never ceased to pay specie during the panic.

A REAL-ESTATE DEPARTMENT FORMED

In 1892 a real-estate department was created, primarily to build halls for the use of subordinate "fountains." In most cases these "fountains" were paying about four dollars a month rent. In some cities as many as forty "fountains" had been organized, which meant $160 a month rent. In these localities halls were built, one of them in Washington, D. C., costing nearly $100,000. This hall has a theatre, a dozen lodge rooms, an armory, two stores, office rooms, and a barber shop. It has proved a valuable investment. In all, the real-estate department reports ownership of twenty-seven buildings and three farms, valued at $400,000.

In the same manner that the savings-bank and real-estate departments have grown up, other departments have been evolved. The successful management of these departments has led not only to the organization of associations similar to this Grand Fountain, but to the founding of the thirty-four separate

savings-banks. But it must be understood that these banks have needed some special influence to foster them, and this influence has been furnished by the National Negro Business League and its subsidiary organization, the Negro Bankers' Association.

It was an easy step from the operation of a real-estate and mercantile department to the organization of a purely business corporation to do the same things. So in 1900 there was incorporated the Metropolitan Mercantile and Realty Company, with a capital stock of $100,000, which has now been increased to $1,000,000. The company has an office in its own six-story building in New York City. This building was erected from plans drawn by the company's Negro architect. Beside conducting three stores, the company has built more than eighty homes, has bought and sold eighteen ready-built houses, and now owns a large subdivision in New Jersey, upon which it is erecting cottages and selling them on easy terms of payment. The officers and promoters are young men, two or three of them graduates of the Hampton Institute, and the others with excellent business education.

Yet it is not in these large fraternal societies and incorporated stock companies that the most marked development of the Negro in business has been seen. The most significant success is that which is attending the individual efforts of Negro men and women all over the land.

PERSONAL STORIES OF SUCCESS

One of these men who has accquired a large business is Mr. A. C. Howard, a shoe-polish manufacturer of New York City. He was a Pullman porter and, like other porters, he was accustomed to polish the shoes of all the passengers on his car. He took special pains with his work, and as he encountered various shoes, he sometimes found great difficulty in giving them a good polish. Furthermore, he found that by making his own polish he could save money. So he began to make his own polish and then to sell it to his fellow porters. He had built up sufficient trade to warrant his resigning his position and giving his time to his business. This was in 1900. He advertised and his wares became known, his business grew and he found it necessary to move to New York. From his New York headquarters he now sends out his goods in a dozen or more varieties to nearly every state in this country, to Mexico, Canada, and to the West Indies. His factory in New York occupies four floors and is in the heart of the business district of large manufacturers and traders. His employees are colored.

Mr. J. N. Vanderwall, a mattress manufacturer at Orange, N. J., is another example. He was a carpet cleaner on wages, but gave up his work and began business for himself in 1897, under the name of the "Carpet Hospital"; later he added the business of mattress-making and now employs from ten to sixteen persons regularly, and does an annual business of more than $20,000.

Mr. James F. Bundy went through the academic and law courses at Howard University, paying his expenses by working at night in the Washington City post-office. After graduation he opened an office as a lawyer and real-estate dealer in Washington. He soon became known as a hard worker. From year to year his success has been marked and he now owns some twenty houses and lots in the national capital. He was recently a member of the Board of Education of that city.

Such are types of a long list of successful Negroes in all sections of the country, there being few towns without at least one or two. It was to stimulate the masses to their business opportunities and in response to a call from Dr. Booker T. Washington that the Negro business men and women from all over the country met in Boston, Mass., in August, 1900, and organized the National Negro Business League. Four hundred delegates from thirty-four states attended. These men and women were called upon to tell in a simple narrative the success that had attended their efforts in business.

Mr. Andrew F. Hilyer, of Washington, D. C., told of a firm of Negro truck-gardeners near Charleston, S. C., that had been in business for more than thirty years, with over 500 acres under cultivation. This firm shipped several carloads of garden truck every week to the Northern markets, the railroad having put a side-track to their shipping house for their special convenience. He also called attention to a dealer and shipper of fish with $30,000 invested in his business.

Mr. M. M. Lewey, of Pensacola, Fla., reported fifty Negro business enterprises in his city of 23,000 population, one-half colored. Among these was a furniture dealer with a

business of $20,000 a year; one colored man who owns real estate valued at $100,000; a young man who had accumulated nine houses in seven years of adult life; two drug-stores, and a firm of prosperous contractors. The tax-collector of the city reported 400 Negro families owning their own homes and 200 more as part owners.

Mr. Isaiah T. Montgomery made what was probably the most inspiring address about the founding of the successful town at Mound Bayou, Miss., on the main line of railroad between Memphis, Tenn., and Vicksburg, Miss. The town is exclusively Negro, the mayor, council, and police all being colored. The success of this town shows what Negroes can do under progressive leadership.

Other examples of individual success might be multiplied. They are to be found in most every locality, although for reasons of prudent modesty the success of these men and women is little known even to those in their own community. In fact, many of those who claim to keep posted on race matters will be surprised to learn that there is a Negro Wall Street broker, Mr. Robert W. Taylor. He was born on a cotton plantation in Alabama, graduated from Tuskegee in 1890, was financial agent of that school for fourteen years and now has an office in New York City, where he deals in stocks and bonds and has a very respectable clientage.

A BANK STARTED BY A PREACHER

A short time after the founding of the True Reformers' Bank, a similar institution was started in Birmingham, Ala., by Mr. W. R. Pettiford. Says he:

"I was riding on an electric railway car through a district in the suburbs of Birmingham where a large number of colored people were employed. There were a number of these colored people on the car who had just been paid off. I had not gone far when I was shocked by seeing a woman among the crowd on the car, drinking whisky. Though I was a minister and she knew me, I had no influence over her. It was at that time that the thought came to me that there should be some sort of business which should take care of the money of that class of people, and that such an institution would enable me, as a minister, to instruct them in ways in which they might better dispose of their earnings."

This was in 1890 and on October 15th of that year the bank opened its doors. Public meetings had been held and public sentiment in favor of the bank had been thus aroused among the colored people. The first day's deposits were $555. In the seventeen years since, it has grown steadily in business and in the confidence of the people. For the year 1906–7 it reports deposits of $1,099,224 by 9,112 depositors. Its first loan in October, 1890, was $10 for thirty days. A few years later it made a single loan of $14,000. President Pettiford relates that one day a washer-woman came to him to ask for money to save her furniture which was about to be sold for non-payment of rent, her husband being a drinking man and wasting the good wages he earned as a mechanic. Mr. Pettiford visited the man and induced him to open an account in the bank and save the money. The furniture was saved and since then the man has become a model husband, has bought and paid for a home, graduated two of his children from the high school and one from the Seminary, and now has a good bank-account.

Not all these bank ventures, however, were successful. The Capital Savings-Bank in Washington, D. C., and the Penny Savings-Bank in Chattanooga, Tenn., begun in 1888 and 1890 respectively, ran for some years and then met disastrous failures, carrying in their ruin many sad experiences. Yet the thirty or more successful banks scattered from Virginia to Oklahoma amply prove that the failures were the small exceptions and the successes the cheerful normal. Of these thirty-odd banks, carrying on a combined business of several million dollars annually, there is one, the Penny Savings-Bank of the Independent Order of St. Luke of Richmond, Va., which deserves special mention. This bank is officered throughout by Negro women; its president, is the chief officer of the St. Luke's Society who directs its various departments with a wide business grasp. She supervises a large department store in which are various lines of dry goods and notions, as well as general merchandise. She has purchased valuable property and erected an expensive hall with lodge rooms, publishing department, bank and assembly room. Her personality dominates everything, and in her rise from the domestic affairs of her own household to the executive administration of the complicated machinery of the St. Luke's Order, including the minutiæ of a bank president, she has demonstrated the capacity of her race.

THE GREAT NAVAL CRUISE

ITS GOOD EFFECTS ON OUR FOREIGN RELATIONS—THE RESULTS TO THE NAVY ITSELF—THE PROGRAMME FOR THE JOURNEY AROUND THE WORLD

BY

JOHN FRANCIS DYER

THE cruise of the Atlantic fleet through the Straits of Magellan up the west coast of South America to San Francisco and Puget Sound, and thence still westward, completing the circuit of the earth, justifies superlatives, and in the main such superlatives are not to be considered bombastic. The plain fact is that no other power has ever sent a fleet approaching this one in size on a trip so long as that already accomplished by it; and at present the journey planned has been but little more than one-third finished. More important than that, even, is the fact that the fighting ships arrived in Magdalena Bay two days ahead of schedule in perfect order, ready "for a fight or a frolic," as the admiral in command phrased it. They were, indeed, in better condition than when they left Hampton Roads December 16, 1907. This was an accomplishment on which President Roosevelt thought it worth while to compliment Rear-Admiral Evans in a personal message.

What the admiral of the fleet himself thought about the cruise cannot be without interest. Rear-Admiral Evans after reaching Paso Robles, Cal., said:

"The coming of the fleet to this coast has not only demonstrated to the world that we have sixteen battleships, which can be brought together for a long cruise at a moment's notice, but it has called the attention of our people to the fact that we have a Pacific Coast as well as an Atlantic Coast, and that it will be defended just as much as every inch of land around New York, and that our interests in the Pacific are to-day greater than in the Atlantic.

"This is the short road to the countries of the Far East, where the greatest commercial development is to be. With development will come war, but it will be a commercial war, fought with brains and dollars, not with ten-inch guns. It will be generaled by such men as Harriman, and the part of the navy is only to be always ready. We do not plan, nor fight, commercial battles.

"The coming of the fleet was most opportunely timed by the President, and its arrival in the Pacific has resulted in the present assurance of peace. Not that I ever believed that there was any actual danger of war.

"If the navy should ever be called upon to fight in the settlement of our interests in the Pacific, it would be to stop with its guns the commercial development for which the leaders of industry are battling with brains and dollars.

"We accomplished much in the cause of peace in the Pacific, when we demonstrated that the efficiency of the fleet increased with each day of the cruise. When the fleet sailed through the S aits of Magellan into the Pacific, the ships were in better condition, and better prepared for action, than they were the day we sailed. That was proved by the target-practice at Magdalena Bay; and the records of that practice, which are most satisfactory, will show it."

THE VOYAGE OF THE DESTROYERS

The torpedo-boat flotilla followed the example of the battleships and reached Magdalena Bay a day before its appointed time. The torpedo-boats separated from the battleships soon after leaving Punta Arenas and took the inside course through the island passages, while the battleships went farther out to sea.

Lieutenant-Commander Cone — he was raised to this rank while in command of the torpedo flotilla — said of this part of the trip, on reaching Magdalena Bay:

"We steamed for days through the narrow channels, a thousand miles long, the passages being barely wide enough to let us through. The waters were cold from the jutting glaciers and filled with broken cakes of ice. The boats took on all the ice we needed for days from over the side. The precipitous cliffs of the snow-covered mountains rose beside us to a height of thousands of feet, seeming sometimes almost to close over us. We threaded our way through these islands, the other destroyers following the lead of the *Whipple*, as we came along in single column.

"We had as a pilot a lieutenant-commander

of the Chilian navy. He steered us through the narrow defiles and over perilous places without the slightest mishap. Frequently at night we would come to anchorage on a narrow shelf of rock, where there would be barely room enough for all the boats to crowd together. These shelves would be but a slender ledge, outside of which the bottom dropped sheer hundreds of fathoms beyond all possible anchorage."

The six destroyers came through the long journey without a mishap of any kind — unless going too fast for their supply-ship could be so classed.

THE WELCOME AT SAN DIEGO

On April 14th the fleet dropped anchor off Coronado Beach, San Diego, Cal., and was again, after three months, in the waters of the United States. The welcome was such as had been given elsewhere — only it was a home welcome. As a quartermaster of many years' service expressed it when he first caught sight of United States soil:

"Lads, there 's where America begins. There 's the edge of God's country, and just over the other side where you see them houses, there is where God's people live. It 's good to get home again."

And the people of the Pacific States were as glad to see the fleet as the sailors were to see the United States again. Everyone welcomed the fleet, and Los Angeles gathered 250,000 people to receive the sailors.

President Jordan of Leland Stanford University spoke the common thought when he said of the coming of the fleet:

"It marks an epoch if it does not create it, and the event it marks is in some degree the coming of age on the part of the Pacific States. They are full-grown commonwealths. They are on the map. They have the same right to protection and the same right to pageantry that the Atlantic States have. . . . Again, the coming of the ships marks the discovery of Asia. . . . We have discovered Asia, and Asia has discovered us. . . . And in the beginning of the twentieth century it shall be written how the great fleet sailed around the world without a mishap, nautical or political, strengthening the bonds of peace and adding one more cable — when so many exist already — that shall hold the states of America in one indissoluble union."

THE OBJECT OF THE CRUISE

What the object of the cruise is is a mooted question, and the President who ordered it has said no more, perhaps, than a wise statesman should. Whether he has told the real reasons for sending such a formidable array of fighting ships to the Pacific Ocean, thence to complete the circuit of the earth, no one is at liberty to say; but he has said something in his official capacity which everyone is at liberty to read and ponder. In his last annual message to Congress the President said that "the battle fleet should now and then be moved to the Pacific, just as at other times it should be kept in the Atlantic," and that it should go as a unit because "until our battle fleet is much larger than at present it should never be split into detachments so far apart that they could not in event of emergency be speedily united." After referring to the great improvement in marksmanship in the navy, and to the squadron manœuvres under service conditions, he continued:

"Another and most necessary stride in advance is now being taken. The battle fleet is about starting by the Straits of Magellan to visit the Pacific Coast. Sixteen battleships are going under the command of Rear-Admiral Evans, while eight armored cruisers and two other battleships will meet him at San Francisco, whither certain torpedo destroyers are also going. No fleet of such size has ever made such a voyage, and it will be of very great educational use to all engaged in it.

"The only way by which to teach officers and men how to handle the fleet so as to meet every possible strain and emergency in time of war is to have them practice under similar conditions in time of peace. Moreover, the only way to find out our actual needs is to perform in time of peace whatever manœuvres might be necessary in time of war. After war is declared it is too late to find out the needs; that means to invite disaster. This trip to the Pacific will show what some of our needs are and will enable us to provide for them. The proper place for an officer to learn his duty is at sea, and the only way in which a navy can ever be made efficient is by practice at sea, under all the conditions which would have to be met if war existed."

There may be more about the purpose of the cruise which could be said; but if there were eventualities in the horoscope which the statesmen at Washington believed it wise to provide against, it seems now that their wisdom may have found the correct solution and that all is now clear in the East. Without doubt the wish for greater efficiency, expressed by the President, has been realized. Naval men agree that the personnel has had valuable

training. There has also been a thorough test of the matériel, in so far as a long voyage without actual engagements or bad weather could test it. Further, in the target-practice at Magdalena Bay, the gunners broke a number of records for swift and accurate shooting, and demonstrated that they can put more solid steel in a given place within a given time than any other naval gunners in the world, so far as we possess any records of similar performances. The highest praise that could be given them by anyone is to say that they improved on their own best previous performances. The innovation of night target-practice was introduced with the guns used in repelling torpedo attacks.

THE BIRTHDAY OF THE FLEET

In a special report on the results of the cruise made to the Secretary of the Navy, one of the admirals summarizes it epigrammatically by declaring that it has been "the birthday of the fleet," and he adds: "A navy without a fleet is simply a mob of ships." His report tends to emphasize the belief that the cruise was ordered for the practice it would give the officers and men, and that the President was moved by far-seeing wisdom in ordering the long voyage. This same officer reported, moreover, that the cruise has been "so far-reaching in its beneficial effects that no words in reasonable compass can express it." Further, he says, it has been "a perfect work of organization." The officers, the men, and the ships have proved their worth. In such a long voyage, what defects there were must have been apparent, yet the ships reached their goal in better shape than they left Hampton Roads. Faults in the machinery have been corrected; personal equations have been established; theories have been worked out in practice. The Department now knows how, in all probability, each ship would be handled in case of war. The *esprit de corps* has been wonderfully strengthened. The important question of coal consumption has been studied out and economies have resulted.

Take that question of coal-consumption alone. When the fleet started on its long journey there was great difficulty in keeping the formation. Every ship had its appointed place in line, but some were inclined to go too fast and others were disposed to lag, so that there was constant strain on the part of the navigating officers to keep at the proper distances. There was backing and filling, stopping and speeding up, which was very trying, and not at all satisfying to the commander-in-chief. Admiral Evans called attention to this matter, and after some practice the engine-room crews found out just how to feed their fires and keep the steam at an even pressure. In doing so they discovered that they could get along with less coal, and it is now estimated that the consumption of coal is nearly 20 per cent. less — with better results. It is not only that this will produce a large and constant saving, amounting to enough in a few years to pay for the whole cost of the cruise, but it means an increase of about 20 per cent. in the steaming radius, which in time of war would be of the greatest importance as it would enable the fleet to keep at sea in presence of an enemy that much longer. With the increased efficiency of the stokers and the engineers, the work of manœuvring has improved. Instead of the trouble experienced at the beginning of the voyage, the fleet was able to proceed up the coast of South America in square formation, four battleships on a side, at equal distances from each other, maintaining their positions "as if they were tied" and making evolutions with nicest precision.

THE INCREASED ESPRIT DE CORPS

Old naval officers hold that until ships become real homes for their crews a fleet can never reach its highest efficiency. On this cruise, daily familiarity with their quarters, their ships, and their officers by the men brought about good results, and it is confidently declared that there is no prouder body of young men in the world than the 10,000 who were shaved and sheared on the "Line" and so became loyal subjects of King Neptune. That some of the officers took part in these frolics at the Equator is considered a striking testimonial of the confidence and respect entertained by the men for those officers and by the officers for the men. Those in authority who have had the good fortune to go on this cruise are the coming commanders of the fleet, and "they will come into their kingdom with such experience as none of their predecessors has had."

Of considerably more than passing importance is the fact that it is now proven to be feasible to make repairs on board ship in a particularly efficient manner. Each ship has

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THE FLEET IN HAMPTON ROADS
Ready for the start made Dec. 16, 1907

AT THE SOUTHERN END OF SOUTH AMERICA

IN MAGDALENA BAY, MEXICO, APRIL 5, 1908
Two days ahead of time and in perfect condition after a cruise of nearly 15,000 miles

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REAR-ADMIRAL EVANS'S FLAGSHIP THE "CONNECTICUT"

a repair outfit, and for work that is too heavy for that there is a repair-ship in attendance which can manage almost any ordinary piece of work that might come to it. Such success has resulted from this manner of making repairs that it is likely that much if not all of the ordinary repair work will be done aboard ship in the future, and only the very heavy and difficult work will be done in the navy-yards, which will thus have more time for original construction. In the divided responsibility for keeping up the efficiency of the motive power the men have had brought home to them the divided responsibility for the maintenance of the fleet, and everyone has had a chance to learn that some duty and care rests on each individual. It has been good for the men to realize their responsibility, and to learn to live up to it.

Dividing the fleets into two grand divisions, or rather, dividing the Navy into two fleets, has been beneficial in promoting the keenest rivalry between both officers and men. If one fleet wins the more honors this year at the canvas targets, the men of the other fleet will strain every nerve to recover the trophies next year, and similar rivalry exists in records for coal-consumption, and for excellence in the various points which make the qualified man-o'-war's-man.

THE FLEET ENTERING THE HARBOR OF RIO DE JANEIRO

Some problems have been settled, and others remain to be solved on the long cruise. One of these problems is the location of the armor-belt. In spite of the fact that some critics claim almost vehemently that the water-line belt is too low, there are those who assert that within two years naval constructors will be asking to have the armor-belt lowered.

AMERICAN SAILORS PLAYING BASE-BALL IN TROPICAL RIO DE JANEIRO

They say that the ships are well protected now, and that there is only one inch less of thickness above the water-line belt, which insures protection except against the heaviest projectiles placed most efficiently. In his report on the subject Admiral Evans said that even in good weather the ships rolled so much that they showed the lower edge of the armor-belt at times, and even if they did not do so it is very uncertain whether shells will not penetrate the water far enough to reach the unprotected portion of the hull.

THE POLITICAL EFFECT OF THE CRUISE

Following the tour of South America by Secretary of State Elihu Root in 1906, which resulted in such great increase of friendly expressions between the countries of North and South America, the voyage of the fleet was without question in the nature of an amicable

OFF THE SNOW CLAD PEAKS OF PATAGONIA
The ships passed in sight of glaciers which drop icebergs into the water

THE MASCOTS OF THE "LOUISIANA"

demonstration. For many years the people of the southern republics had been accustomed to see in their ports the flags of England, Germany, France, Spain — any flag except that of the United States. Now they have had a chance to see with their own eyes the force we can mobilize for sea duty at short notice, and they will not soon forget it. The torpedo flotilla made many ports that the big ships did not include in their itinerary, and everywhere the same enthusiastic welcome awaited the ships and the men — in San Juan as well as in the Trinidad, Para, and Pernambuco; in Rio de Janeiro, Montevideo, Punta Arenas, Talcahuano, Callao, in Ponama and Acapulco. Even in Magdalena Bay, situated in the midst of a desolate and practically uninhabited region, there was a warm welcome from the handful of persons there, including official representatives of the Government of Mexico.

It is not to be denied that heretofore the commercial relations between the United States and the Latin-American republics have not been so close or so mutually profitable as could have been wished. During recent years, however, largely through the far-seeing policies of President McKinley, President Roosevelt, and Secretary of State Root, influences have been at work for the cementing of closer relations between the American republics. The voyage of the fleet has thus come at an opportune time. It has been a topic of intense interest throughout the length and breadth of South America and, in the ports where they have touched, the ships have been a visual demonstration of the wealth and power, of the tremendous potentiality, behind the flag they float — a potentiality which gives daily and hourly vitality to a doctrine essential to the integrity of every individual sovereignty in the Western world — the Monroe Doctrine. As the people of Latin America are affected largely by the testimony of their senses, the sight of the battleship fleet has given them a vivid impression of the power of the United States, and that impression will last until the not immediate contingency of a bigger fleet under another flag in their waters shall show them that a stronger naval power exists.

FROM A COMMERCIAL VIEWPOINT

The demands of friendship and hospitality occasioned by the visit of our fleet have

LIEUTENANT-COMMANDER H. I. CONE

Who brought the six destroyers from Punta Arenas up the west coast of South America to Magdalena Bay in perfect condition, and one day ahead of schedule time

THE FLEET ANCHORED OFF PUNTA ARENAS, CHILE
Where the destroyer flotilla separated from the battleships

called forth from the people and governments of South America such expressions of good will that the result, politically and commercially, while not measurable by any scientific device or translatable into terms of material wealth, must nevertheless be positive and tangible. It is not too much to predict that these results will show themselves, in part, in the future "calendar year statements" issued by the Bureau of Statistics

ENTERING THE HARBOR OF VALPARAISO
To salute the President of Chile, an impromptu act of courtesy by Rear-Admiral Evans

of the Department of Commerce and Labor. According to the Calendar Year Statement for 1906, the imports into the United States for that year from South American countries amounted to $148,050,955, and the exports from the United States to those countries amounted to $78,822,379. Our imports from Brazil are greater than those from all the other South American countries combined, amounting in 1906 to $86,476,959 out of a total by all countries of $258,214,000. In other words the United States absorbs 35.1 per cent. of all the exports from Brazil. On the other hand, out of $161,587,000 representing the imports of goods into Brazil, the United States furnished $16,547,375 worth, or but 11.4 per cent. The opportunity for the increase of our foreign trade with Brazil's 15,000,000 inhabitants, whenever internal conditions in this country make it seem advisable for our merchants and manufacturers to reach out more vigorously after it, is too apparent to require any exhaustive dissertation. Very much the same are the trade conditions between this country and other South American countries.

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REAR-ADMIRAL THOMAS ON THE "MINNESOTA"

He was placed in command of the fleet during Rear-Admiral Evans's illness

FROM SAN FRANCISCO ON

While the requirements of the voyage, beset as it was with anxieties of which the

IN THE STRAITS OF MAGELLAN

Which are 360 miles long and from 2½ to 17 miles wide. During a part of the time of the passage of the fleet through the straits there was a dense fog

landsman could know nothing — which reduced the commanding officer from a robust man to a sick man at its close—did not permit of battle tactics, it is likely that the fleet will have various kinds of battle manœuvres on the remainder of its 40,000 mile cruise. The ships will go from San Francisco to Auckland, with a side trip for some of the ships to Samoa; to Sydney and Melbourne, with a halt before leaving Australian waters to coal at Albany; thence to Manila, with visits to Yokohama and Chefu; then back again to Manila, where it is intended that the fall target-practice shall be held in November. After that, the fleet is scheduled to go through the Suez Canal and the Mediterranean, and so home to New York on what should be an auspicious date for a home-coming — February 22nd, Washington's Birthday. There will be a warm welcome awaiting it, but it will very likely be ever a serious question whether the demonstration here or on the Pacific Coast was the more noteworthy.

THE "ILLINOIS" ON THE TRIP SOUTH

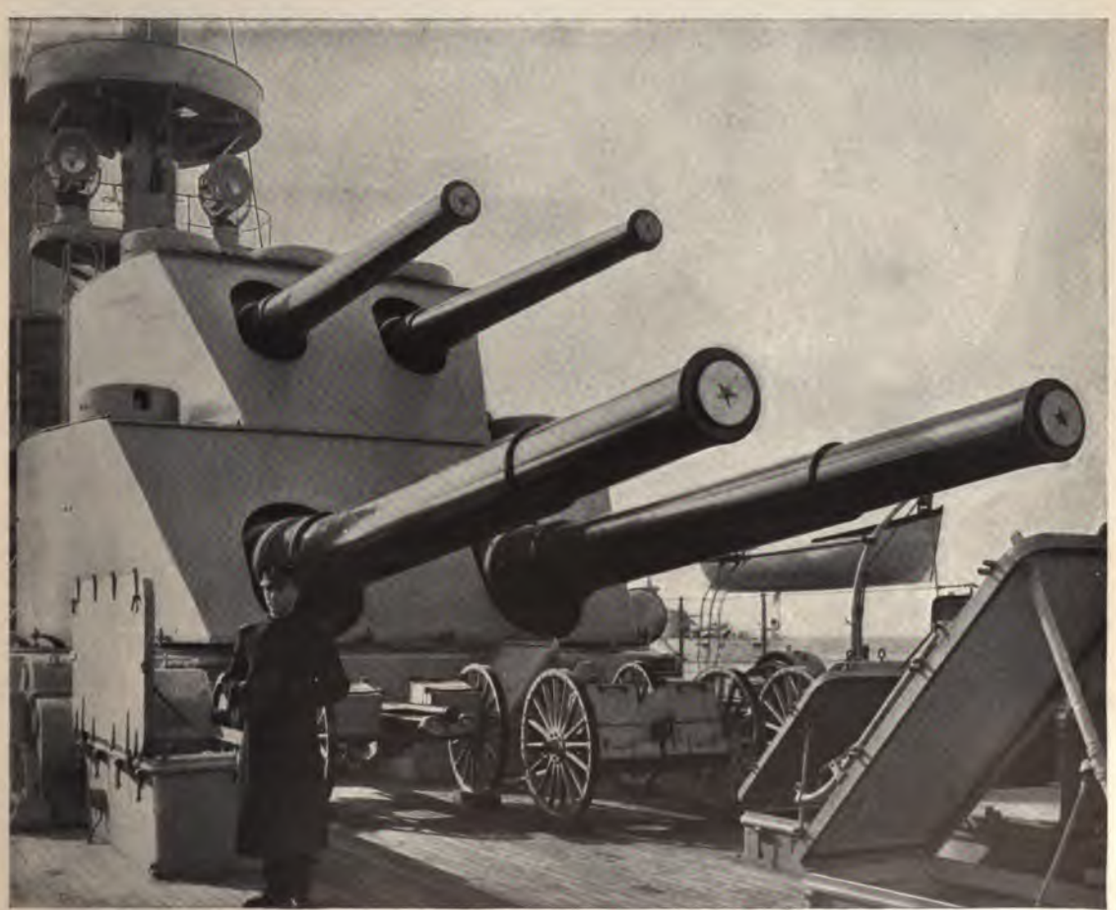
Photograph by Enrique Muller

IN A GUN TURRET ON THE "CONNECTICUT"

Copyright, 1908, by Enrique Muller

THE BREECH OF A SMALLER GUN

In the target practice in Magdalena Bay the gunners broke a number of records for swift and accurate shooting. Night target practice was introduced



TURRET GUNS OF THE "GEORGIA"

Showing the size of the much discussed gun ports

ST. MARY'S (ANGLICAN) CHURCH, ONTARIO, CANADA

A PROPER VILLAGE CHURCH

THE PASSING OF THE IMITATION CATHEDRAL AND THE COMING OF A TYPE THAT IS ENDURING AND NOBLE

BY

ROLLIN LYNDE HARTT

TO DO small things greatly — to concede their smallness, yet revere it — is the splendid ideal that guides the new movement for giving dignity and beauty to the village church. We are outgrowing the impulse to make little things seem big. We have already attained that sanity which begins to discover the nobility of working in miniature — if only, within its limitations, the miniature achieves perfection.

Few contrasts in our artistic history are more striking than that between the old and the new churches in our suburbs and rural centres. The older ones, though not always devoid of attractiveness, usually express a desire to make a small thing great by depriving it of its inherent character, which is smallness. Needless height, to admit galleries in which no one sits; tall spires, aiming at sensationalism more often than at grace; a skyline thrust high for mere sake of show — such devices, thought the elder architects, would yield a cathedral effect. To that extravagant aim they sacrificed richness of material and elegance of ornament. And they failed in their purpose. They produced not a small cathedral but a parody of a cathedral, not a heroic design but a mock-heroic anomaly.

HONESTY THE BEST POLICY

This induced reaction, as was only natural. Would it not be more sensible, and therefore more dignified, to own up to the smallness — no disgrace when confessed frankly — of the village church? Why not let it stand forth, unashamed, as a little meeting place for a little company of worshipers? Unfortunately though, this return to sincerity was accom-

plished at the least favored moment. Queen Anne had set in. American architecture was tipsy with queerness. The churches it built during that carnival of gew-gaws and fantastic shingles had the merit of honesty but not that of appropriateness. It was hard to tell a church from a roller-skating rink. Sometimes the church resembled a sort of romantic chicken-house. Sometimes you mistook it for a casino. And yet the break with the mock heroic had been accomplished; people found that they could be happy without travestying Salisbury Cathedral or setting up a

Cram, Goodhue, and Ferguson, architects

A STONE CHURCH IN A CLOSELY BUILT UP SUBURB

An adaptation of the English Gothic chapel

$10,000 York Minster; the next step was to be doing greatly what they had already learned to do candidly. Pretense, which has never been honored in Christian doctrine, had ceased to be honored in Christian architecture; it remained to infuse beauty into that frankness which had agreed to accept littleness as no ignominy.

THE FAILURE OF THE MAKESHIFT TYPE

The quickness with which we wearied of Queen Anne brought its useful lesson. In building it is safest to keep to a time-honored style. New fashions, however charming at first, may soon become hideous; they suit a passing mood; we cannot be sure but the years will make us wonder that we ever admired them. Old fashions, on the other hand — that is, old fashions that people have for centuries continued to admire — give promise of permanent delight. They have appealed to some primal instinct of eye and heart, and primal instincts are enduring. So it was reasonable that the architects should turn to the past for suggestions for village churches. They turned to the ancient chapels of rural England and to the beautiful, small churches of the little English towns. Men of our own blood had built them hundreds of years ago. Men of our own blood had for hundreds of years cherished and loved them. And ever since Americans first went touring in England, the sweet dignity of those ancient places of worship has found something to respond to it in the American sensibility.

PROGRESS DEPENDENT UPON THE PUBLIC

There is this distressing thing about being an architect; you can build only what your

A SMALL CATHOLIC CHURCH IN A COUNTRY SUBURB

clients will let you build. They pass upon your plans, vetoing as they like. Here, however, there existed a sufficient body of appreciation, due to travel, to warrant the architects in urging the merits of the English Gothic. Their plea prevailed, as any reader will understand who studies the photographs published with this article. A few adaptations, a few changes for utility's sake, have given us English Gothic chapels in a hundred American villages — some of them very tiny churches, others almost as big as those in town; some severe in treatment, others flowering out into delicate ornament; some with low towers, some with high; but all, when designed by men who have caught the Gothic impulse, breathing the spirit of Old England, which was once the home of many of our people. Even when set down in our own lively villages, they have a look of having always been there. You feel that your ancestors might have looked upon that crenelated tower and passed in and out at the low-arched door that pierces the thick stone wall. The ivies that clamber over the stout buttresses might, for all appearance, have been planted by Roundheads or Cavaliers. The window in the pointed gable might have seen its mullions and traceries carved by believers who wrought for their soul's salvation. The whole exquisite design fits the modern American sense of appropriateness, just as it fitted and still fits that of our English kinsfolk. It will continue so to do.

THE GLORIFIED CHAPEL

In form, in construction, in material, and in finish, these new churches have brought about a veritable revolution. Instead of the pocket cathedral we have the glorified chapel; instead of the almost-casino and the perhaps-roller-rink, we see an unmistakably religious edifice. Instead of soaring roof and up-leaping spire, we now have a low skyline and a stout spireless tower in keeping with the limited area that the building covers.

Meanwhile, heavy masonry suggests that men have set up something enduring, as a symbol of enduring faith. Such construction will last for centuries. What a contrast to the flimsy, clapboarded meeting-houses, which fall so swiftly into decay! Besides, the structure is rational. Those heavy buttresses are not merely for ornament, like the shingled ones that delighted the devotees of Queen Anne; on the contrary they give additional strength to walls already strong.

In material, too, there is an admirable advance. Stone, the best stone, bears witness to the seriousness, perhaps even the self-sacrifice, of the builders. You recognize that they felt that the house of prayer was too sacred for cheap or tawdry stuff, such as brick or baser matter, to be wrought into. An end of wood painted to look like stone; an end of all shams, makeshifts, and vulgar cheats! And whenever men build in this earnest spirit, the very winds and rains are with them. When worn with time, these noble walls will be more beautiful than they are to-day; moreover, they welcome the woodbine and the ivy and are gladdened when the mosses come. After the centuries have softened and ripened and blessed their loveliness,

Geo. F. Newton, architect

A BAPTIST CHURCH IN A SIMILAR LOCATION

AN APPROPRIATE SMALL VILLAGE CHURCH

A COUNTRY UNITARIAN CHURCH IN NEW ENGLAND
With an appearance of stability and fitness with its surroundings

the American English Gothic churches will be the joy of painters and an inspiration to poets, while touching a tender responsiveness in all who feel their religious spirit.

RESTRAINED ORNAMENTATION

In finish they live up to the same principle that has ruled the work of such architects as Messrs McKim, Mead, and White, though applying it in so different a realm. They confine the area of ornament, yet within that area they elaborate it richly. Great flat spaces go undecorated, depending for their beauty upon the perfection of the material and its perfect adjustment. Faultlessly executed masonry has a splendor of its own. Then, when a limited space — window, let us say — receives decoration, the finest design is wrought in the finest of materials. Stone mullions divide the window vertically, stone traceries weave a wondrous pattern in its pointed top. If stone copings enclose a doorway, they are cunningly chiseled. If a pinnacle terminates in finials, each is as chastely wrought as a jewel. The total effect is the beauty that inheres in form, touched reverently with ornament. It is restful, dignified, religious —a thing done solemnly, yet with a solemn joy.

With the rest comes a new insistence upon greenery. Without spacious lawns, without the pleasantness of surrounding trees, and without the grace and clinging prettiness of vines, the Gothic chapel wears a certain look of grimness. Verdure, in this instance, becomes a part of the architect's plans and specifications. And as leaf, branch, and blade belong with the English chapel, so the English chapel belongs with them. There is about it something that suggests the rock jutting out in a grove, the stray boulder lodged in the forest among ferns and tangled creepers.

Cram, Goodhue, and Ferguson, architects

THE GOTHIC CHURCHES HAVE SOLID, HONEST STONE DECORATIONS

A Unitarian church in a residential suburb

A FITTING INTERIOR

But what of the chapel's interior? Again the same solidity, the same honesty, the same limitation of decoration as regards area, the same luxuriance of decoration within its allotted space. Windows, save those at the end of the church, will not be large, but they will be exquisitely shaped, while the large ones, with their magnificent traceries, afford an opportunity for gorgeous effects in stained glass.

Great rafters, supporting the arched roof, are fashioned simply and with supreme elegance. Yet it is to form less than to the treatment of detail that the little auditorium owes its beauty and its fitness. The pointed arches of doors and windows find themselves repeated in the lines of the roof, and the lowness of the roof gives an impression almost of privacy; you are not at your devotions in a large, gaunt place, but closeted, so to speak, in company.

THE INTERIORS UNCROWDED WITH USELESS ORNAMENT

The exterior of the church is shown on the opposite page

Instead of the mass-meeting idea, it is the sanctuary idea. The voices of singers and preacher come with a more intimately personal spirit than was possible in the high, big, and all-but-echoing halls which we once thought appropriate.

Nevertheless, it is not form, nor construction, nor finish, nor the grave charm of interior that most impresses the beholder. Back of all these graces, he reads a finer one. "Here," the chapel seems to say, "is a group of believers who have done a small thing greatly." Disdaining sham, they have shown sincerity. They have revered their small but splendid opportunity and glorified it by fulfilling its natural possibilities, not seeking to do more than was asked of them but devoting their best energy to doing that little supremely. To this end they have given time, patience, and no paltry sum of money. They have monumentalized those traits of mind and heart which are most civilized because they are most Christian.

AN ARCHITECTURE THAT REFLECTS CHARACTER

In scores of American villages rages to-day a debate as to what type of church shall succeed the tottering edifice built in those unenlightened years that made American architecture a horror. Some argue for the blatant style, urging ostentation at cost of genuineness; they would rather have a shingled steeple two hundred feet high than a masonry tower fifty feet high; they prefer a giddy, checker-board roof, lofty and showy, to the low and reasonable skyline; they plead for a profusion of fantastic ornament. In a word, they act as if planning a sanctified exposition building. On the other hand, there are those who take their problem as they find it, respect its limitations, and aspire to work greatly within them. They can scarce do better by way of persuading the disciples of display

than to show them the charming, dignified, rational, and permanently lovely little chapels which, happily, are no longer rare in American villages. Then let them emphasize the principle, old but still inadequately observed, that architecture reflects character. He who builds erects an emblem not only of his æsthetic, moral self. And the English church, with its candor, its earnestness, its reverent simplicity, and its refusal to tolerate any sort of pretense or vulgar show, becomes an enduring memorial to the spirit that fashioned it.

Geo. Newton, architect

AN ENGLISH GOTHIC BUILDING FOR A CONGREGATIONAL CHURCH

This type "stands for the meeting place for a little company of people, a glorified chapel," satisfies and is used by all sects alike

THE IMPROVEMENT OF THE VILLAGES

The mechanical and commercial forces—and forces only secondarily æsthetic—are helping the cities to be better ordered and more dignified; and a similar upward tendency in architecture is beginning to show itself in the country. The increasing desire of the people for good, honest, functional architecture is improving the looks of our villages by substituting beautiful places of worship for the unsightly spired imitation cathedrals which used to be the most prominent buildings in the country towns. For in the villages and suburban towns where the churches are often the largest and most centrally located buildings, they give character to the whole community. Their architecture therefore is important to the community. Its importance is of an even wider radius, for these villages in turn give character to the whole countryside.

RE-ENACTING 300 YEARS OF QUEBEC'S HISTORY

THE COMING TERCENTENARY PAGEANT OF 4,000 PEOPLE AIDED BY WARSHIPS AND SOLDIERS OF THREE NATIONS

BY

J. N. McILWRAITH.
[AUTHOR OF "THE SPAN O' LIFE," "A CHILD'S HISTORY OF CANADA" ETC.]

ON MONDAY, July 20, 1908, will begin the tercentenary celebration of the founding of Quebec — a celebration different from any other ever held on this continent, and of its kind more imposing and dramatic than any of its predecessors. A great historical pageant is to be given before the tens of thousands who will gather to honor the birthday anniversary of the ancient capital of Canada. Mr. Frank Lascelles, who was master of the successful pageant at Oxford last year has been engaged to conduct that at Quebec. He has given a slight outline of his plans.

A PLAN OF THE CELEBRATION

"On the bank of the river Jacques Cartier will plant his cross and read to the assembled Indians the very words he read on the banks of the Lairet 400 years ago. Then down to the river he will go, taking with him the Algonquin chief; and, their wild dances hushed, the Indians will accompany him to the boat, and paddle away in their canoes as he sets out on his journey back to France. Then you will be transplanted to the gardens of Fontainebleau, to the proud court of François I. Ladies and gentlemen, courtiers, and knights, habited in the costume of the time, will come into view, while Jacques Cartier, at the command of his King, recounts his discovery of the great western country. Then some years pass by and at the court of another King, Henri IV., we see Champlain receiving his commission to set out on his journey of discovery, where the brave Cartier had been in the century preceding. We are transported again to see Champlain in other scenes of his life in the new country and the new city he has founded. So we pass on in quickly varying sequence through many historic scenes, the arrival of the Jesuits, and of Mother Marie, the founder of the Ursulines.

"We are shown Dollard, the hero of Montreal, with his band of the faithful sixteen making a stand against the hordes of savages, and so saving Canada. The furious Indian battle will be seen before our eyes, the little fort with its brave occupants will stand out against the flight of arrows and the furious onslaught of the Iroquois. Until at last the brave fight of the heroes comes to an end and a heap of ashes is all that is left. Then on to a stately scene in which will figure one of the saints of old time, the noble and venerable Monseigneur de Laval, who, surrounded with all the state and ceremony of an ecclesiastical prince, will receive the official representative of the King; blazing in many colored uniforms the Marquis de Tracy will pay his homage to the church; then Daumont de St. Lusson takes possession — in the name of the King of France — of the country of the West; Frontenac receives at the Château St. Louis the envoy of Sir William Phipps; until at last in one great final scene, the like of which taxes one's imagination to the utmost, we shall see our common ancestors side by side, as they have been ever since, in one of the greatest assemblies that the heart of man can conceive. In one great group will be gathered all of the historical characters who have played their parts in the various scenes and beyond them some thousands of soldiers of France, of England, and of America sent to do honor to this great tercentenary celebration."

A PAGEANT 4,000 STRONG

Four thousand Quebeckers, many of them decendants of the original participators, will take part in the spectacular reproductior of these stirring scenes.

While the pageant is in progress on the Plains of Abraham the imagination of the spectators will be carried back to the actual occurrences upon this historic ground. The Anglo-Saxon fancy will see again the skirmish which changed the destiny of a continent, the fight between the French and the English on September 15, 1759. Again will Wolfe toil up the cliff with his small army; again will Montcalm sally out of the city to meet him;

again will the leaders fall and the war-cry of the Highlanders be heard as they chase the French backward into the town or helter-skelter over the hillside to their camp in the valley of the St. Charles.

The scene most vividly recurring to French-Canadian eyes will be that of the following spring when those same Highlanders, ragged, sick, and half starved, after a bitter winter spent in holding the ruined city, rushed out under General Murray to meet their French besieger General Lévis and were defeated by him.

The two battles on the Plains of Abraham, creditable alike to the French and the English, serve to create a common desire for their preservation as free from unsightly buildings as they were when they served as pasture land for Abraham Martin, the pilot of Scotch descent, to whom Champlain granted land as far back as 1635.

THE SCENERY OF QUEBEC

The grandeur of the scenery at Quebec makes a fit setting for the events which are to be portrayed. The city is built on a great cliff overlooking the St. Lawrence which narrows down until it is not more than a mile in width where the British ships with Wolfe's men floated up and down with the tide watching for a chance to make a landing which would not be subjected to the French fire. To the north of the promontory, considered impregnable until Wolfe climbed it, the land slopes down more gently to the broad, sunlit valley of the St. Charles, where one wing of the army of Montcalm was encamped defending the approach to the city.

At the juncture of the St. Charles and the Lairet is the place where Jacques Cartier spent the winter of 1535-36, and where the first Jesuit mission was erected in 1625. Almost every foot of ground in and around Quebec was the scene of some historic event. From the Dufferin terrace the city looks across at the forts of Point Levis whence proceeded the British bombardment during the summer of 1759. From the same eminence at an earlier time Frontenac had thundered defiance at another British fleet.

On the same Dufferin terrace stands the monument to Champlain erected ten years ago above the spot in the cliffside where a moldering coffin, supposed to be his, was discovered.

The terrace connects with the narrow boardwalk round the cliff, below the citadel and above Champlain Street, where the American General Montgomery met his death while trying to make connection with Benedict Arnold at the foot of Mountain Hill for the capture of Quebec. Five times has the old city been besieged — 1629, 1690, 1759, 1760, 1775 — but the peaceful invasion of this summer will be numerically the greatest of them all.

THE MONUMENTS AND THE CITADEL

Visitors will admire the impartiality with which monuments have been erected, the same shaft doing duty for rival generals — one to Wolfe and Montcalm in the Governor's Gardens; one to Lévis and Murray on the Ste. Foye Road. The citadel, which is one of the sights of the town, is not the one which stood in the times of Montcalm and Wolfe. It is fairly modern, as things go in Quebec, being built upon designs approved by the Duke of Wellington. The citadel preceding the present one was built by Governor-General Sir Frederick Haldimand. During his incumbency Horatio Nelson, then captain of the *Albemarle* came to Quebec and fell so desperately in love with one of its belles that he was in two minds whether to sail with his ships when ordered away or not. Nelson's was a peaceful visit, but other sea captains have come upon warlike errands, and their success has been commemorated by the building and rebuilding of the small churches on the site of Champlain's original building, called Nôtre Dame des Victoires

QUEBEC STILL FRENCH AND CATHOLIC

For a century and a half Canada has been English, but Quebec remains French and Catholic as before, for the English realized that the maintenance of her language, laws, and religion was the only means of preventing Canada from joining hands with the English colonies to the South in their Declaration of Independence. It is said to be more Catholic than Rome itself, and there are domiciled in Quebec certain orders of priests and nuns exiled from France. Soutanes and sandals, white serge gowns and flaring caps are common sights in Quebec.

At the tercentenary celebration there will be a notable company gathered. In the Citadel is to be quartered H. R. H. the Prince of Wales, who is to have thirteen battleships as an escort besides a company of Life-Guards.

The Gordon Highlanders, with whom the Canadian troops were associated in South Africa, are also coming. From England, too, comes the Secretary of State for the Colonies, and there will be official representatives from the United States, Australia, South Africa, New Zealand, Newfoundland — from the Anglo-Saxon race around the world. There will be a representative from the French Republic and also from the town of Brouage, the birthplace of Quebec's founder, Samuel de Champlain.

Fleets of three nations will be in the harbor and armies of three nations on the plains, and there will be a bombardment of the ancient city with fireworks that shall excel in brilliancy though not in destructiveness any of those which it has suffered in the past.

TO PRESERVE THE PLAINS OF ABRAHAM

The tercentenary celebration is distinctly French-Canadian, but the present English Governor-General of Canada, Earl Grey, has seen in it an opportunity to incorporate a plan in which the whole of Canada is interested, the preservation of the Plains of Abraham. His plan includes building a driveway seventy-five feet wide encircling the cliff and the erection of a great monument to peace which will greet the incoming ships as the Statue of Liberty greets those entering the harbor of New York.

THE GROWING SOUTH

A COMPREHENSIVE STATEMENT OF THE STATUS AND FORCES OF THIS EMERGING ERA

BY

EDWIN A. ALDERMAN

PRESIDENT OF THE UNIVERSITY OF VIRGINIA

THE most interesting and impressive social movement to be observed in the world to-day, unless it be Russia trying to comprehend democracy, is the spectacle of the American republic trying to adjust its new self to its old self so organically that it shall lose neither the individualism which guarantees freedom, nor the coöperative genius which insures power and progress. To me, at least, the most impressive phase of that struggle is the self-reliant effort of the Southern States of this Union to transform their economic and social life, to master the weapons of an industrial civilization, and to breathe easily the spirit of twentieth century Americanism, without sacrificing their deepest political and social instincts.

FIVE ERAS OF SOUTHERN HISTORY

My particular theme is the building spirit now at work in the states of the South. To understand the present South, one must have for a background five other Souths, forming a very dramatic and moving story in American life. There is first to be considered the nationalistic and imperial South. Up to 1830 it is not always clear to students of American history that the seat of active nationalism and imperialism was in the South. It was the era of the Virginia country gentleman and his kind throughout the South. It is difficult to see how there ever could have been any union without the continental thinking and thrilling nationalism of this group of men. One needs only to add Hamilton to such a group as Washington, Jefferson, Marshall, Madison, and Monroe, and the Union can almost be accredited to their combined genius.

From 1830 to 1860 there existed what might be called the self-centred and defensive South. Unable, through the influences arising from the presence of the African in her life, to engage in sincere debate with herself, and exposed to the hostile and oftentimes cruel criticisms of the world, this attitude of buoyant nationalism and growth soon changed into one of introspection and defense. This is the South that has fixed itself in the imagination of men. This is the South that, under a generation of harsh criticism, developed abnormal popular sensitiveness, so that it is still very hard for a man who loves the South and knows its virtues and tragedies to criticise it bluntly,

or for the people themselves, who have endured that criticism and suffered under these tragedies, to receive such criticism impersonally and patiently. The great corrective forces of bold thinking and plain speaking are not yet at play as they should be in our public life, though material strength and unity of aims with the rest of the country are daily lessening this one stunting inheritance of years of isolation.

This defensive South was a land of few cities or centres of population, clinging to a few central ideas. It was a land wherein a tumultuous love of liberty and of chartered rights existed side by side with human slavery; wherein aristocracy and democracy went arm in arm together for the last time in human history. This system did not produce in a just degree either wealth or letters; yet it did some things remarkably well. Out of it issued a small but wonderfully alert and powerful political force. The strength of this force was not so much in its power of social imagination or breadth of vision, as in an inflexible public integrity and a certain elevation of thought about the State and the whole idea of public service; a passion for principles, though they lead to ruin; and an intense singleness of aim. This society had its faults and it was doomed to pass, but there lived in it a deep historical meaning. Here may be seen the spirit of romanticism with its central note of exaltation of personality and of the class feeling above general social progress; and here was the heroic tradition, with its attributes of feeling and spontaneity and heady enterprise, making its last stand in the new West against efficiency and correctness and form.

The dominant units of this society were men of English and Scotch and Scotch-Irish breeding and consciousness, caught in the grip of an economic misconception and unable to extricate themselves from it by any wisdom of the time. This society as early as 1800 was as homogeneous as England or France to-day. It has retained this homogeneity, and it should be remembered that the wonderful re-ordering of Southern society since 1870 is the work of this homogeneous population. The only truly Anglo-Saxon communities in the world to-day are in rural England and the Southern states. These men were proud men; the dogma of local self-government was their deepest political conviction; they did not enjoy being told how to order their affairs; and, so, they molded their society and fulfilled their destiny.

As I perceive the republic to-day, working its will among the nations, a feeling comes that the defensive and self-conscious South did the nation a high service, by projecting into its body of energy a spirit of loyalty to ideas, of passion for principles, of romantic devotion to causes; and it is for our soul's good, I believe, that we breathe deeply of that old air of leisure and of love of home and country life, and that as a nation we are taking more thought of the conceptions of that age about personality, dignity, and service. And, as we forge still further forward, I believe we shall hark back with benefit to that single-minded but romantic age, blotted out almost without warning as by the fury of a tempest, with its consciousness of self and of personal values, such as dignity held second to honor; that gameness in the blood; that grand manner; that archaic pride of honorable descent; that steadfastness of ideas; that mingling of the simplicity of a shepherd with the pride of a king; that "moral elegance" in matters constituting a public trust.

From 1861 to 1865, the defensive passed easily into the militant South, counting it a privilege and a glory to stake all for its faiths and theories upon the issues of war.

And then from 1865 to 1880, let us say, there existed the submerged South, the silent, the enduring, the patient, the grim South, walking in an economic and social "valley of the shadow of death." Our poor human nature has never been put to a severer test than was this enduring South, and our poor human nature has nowhere endured that test more finely. For the first time in history it was sought to place over a white race as their rulers a black race, recently held by them in slavery. Their sense of superiority to the race so set over them, and their extraordinary unity, welded still more firmly by the fires of war, alone enabled Southern whites to emerge whole from the ordeal. It was a sad time, and left behind a bitter deposit. Only the great spirits of the era had the strength to pass happily from that age to this, a spiritual distance of three hundred years.

This is why we who were born in a later day think so tenderly of the gray-haired man of the South to-day, whose heart is unpoisoned with hate or revenge, whose spirit is young and hopeful, and whose devotion to his whole

country, which no power now can ever break, is as clear and high as was his faithfulness to the flag which his courage advanced so high and so far. I remember it all dimly as a boy at school, reciting Father Ryan's "Conquered Banner" and the mournful threnodies of the period. I remember the sad and subtle mystery of my father's face as he sat on his gallery and gazed wistfully over the world which seemed so bright and alluring to my young spirit. He was striving in middle life to adjust himself to a new world, whose features he could not recognize, and in which he must live and work as he had in the world gone from him forever, amid the flashing of the guns. That he crossed the perilous bridge between the eras safely and strongly was his best legacy to me. That General Lee as a quiet teacher of youth made the great adjustment so simply, that he somehow contrived in such work to wear defeat like a laurel crown, is the chiefest reason for the vast love for him which abides in Southern hearts.

SEVEN PROBLEMS OF THE GROWING SOUTH

From 1880, roughly speaking, until this hour, there is to be considered the emergent and Growing South, striving to maintain its essential social and political traditions, and yet, with a completely altered economic point of view, transferring its energies from combating and enduring to building and growing.

Instinctively, as has every renaissance period, the Southern States have expended their chiefest energies on the most fundamental of all social tasks — education. It was necessary to understand, to face, and to conquer the following conditions, in order to establish solidly in Southern life an enduring system of democratic education:

1. The free public school was not possible in the South during its years of isolation and submersion, when plantation life, instead of community life, was the unit; when individualism controlled state policy, and slavery obstructed communal growth.

2. The South was rural and sparsely settled, which are the most difficult conditions for the spread of public schools.

3. The South was bi-racial, involving a duplication of educational effort and a conquest of racial difficulties.

4. The South was the overburdened section of America. No other Americans have ever known, in its direst form, the discipline of war and defeat. No other region among the great culture nations, not even France, ever lost in less than a decade over one-tenth of its population, three and a half billions of its wealth, the form of its society, and the very genius of its life, save a certain unconquerable courage and self-reliance. No other region except Poland ever knew such losses, and Poland ceased to exist. The year 1900 had come and gone before the South had regained its per capita wealth of 1860.

5. The South must pass from an agricultural order, depressed by poverty and misrule, to an industrial democracy, wherein it must regain its national consciousness in a country which itself was just beginning to understand what real national self-consciousness meant.

6. The character of the citizenship of the South, both the unexploited and backward elements and the old sturdy stocks, sobered by fortitude and woe, promised the richest results in character and efficiency to the nation at large.

7. There existed in the South an untaught and backward race, newly and suddenly projected from slavery to citizenship and economic responsibility.

The state university, the private academy of rare excellence, practical initiative in the education of women, may be considered the chief educational achievements of the ante-bellum South.

A SERIES OF ACCOMPLISHMENTS

Since 1880, in spite of all the difficulties above enumerated, the South has increased this sum of accomplishment, in the following directions:

1. The Southern people have had the political patience and equipoise not to disturb the only good thing bequeathed to them by the carpet-bag governments, namely, the provisions for popular education, placed in their organic law.

2. They have developed an overwhelming public sentiment, with the social and political agencies necessary to sustain that sentiment, in favor of the education of all the people at public expense, thus making of a social system, semi-feudal in nature, a democracy in *social usage*, as well as in political philosophy.

3. They have guided that sentiment to the point where 45 per cent. of all their public revenues are expended upon education. They

have increased their school revenue, in the last five years, $11,590,000, and two-thirds of this sum has come from local taxation, a community weapon of enormous power, formerly dreaded by the property-holders and hated by the people themselves, to whom it was sparingly permitted.

4. The South has developed the genius of school organization necessary to create a system of popular education in every Southern state, fairly complete as to its machinery and methods, quickened and strengthened by normal and industrial schools for both races, and vitalized by the establishment in the last five years of 650 public high schools. In all, 120 institutions of higher learning have been revived or established, instructing nearly 30,000 students. The combined income of all these does not greatly exceed the combined income of Harvard and Columbia; but this income is growing steadily, and it is largely the result of local beneficence, or legislative wisdom. Less than 3 per cent. of the $600,000,000 given in the past thirty years to education has come southward, and less than 1 per cent. of that sum has come to the whites. Instruction in agriculture and technology, through the initiative of the National Government and the coöperation of the State Governments, has been carried to the point where 1,000 Southern boys are now studying these subjects, where one studied them a generation ago. Scarcely a town of 3,000 population exists in the Southern States today without a system of public schools free to all. The percentage of illiteracy of the white race has been reduced from 25 per cent. to 15 per cent. and of the colored race from 87 per cent. to 45 per cent.

5. Owing primarily to the patriotic genius of Samuel Chapman Armstrong, and the human enthusiasm of a select group of patient men and women in both sections and of both races, the two greatest experiment stations in the world for the training of a backward race have been established in the South, and a wise direction given to the education of the African element in our body politic, whose training was missing the mark widely, owing to unintelligent zeal for their welfare on the one hand, and a mingling of resentment and despair on the other.

6. The ability of this generation to recognize education as something larger than mere learning or even discipline, to perceive it as a great force molding national character, has caused the enlistment into this field of work of young men and young women of creative capacity and exalted character, who, under other conditions in Southern history, would have instinctively turned to political and social fields for distinction and service.

7. The tardy appearance of these states in the field of democratic education has given them an opportunity which they will not pass by, to avoid many of the educational errors of the more forward American communities. Already one notes in their curricula an insistence upon the studies that give emphasis to the duties of men and the glory of service, rather than to the rights of man and the splendors of achievement. The whole educational curriculum reveals the mood of the Southern mind in the effort made in it to discipline the will, to understand social and economic causes, and to see the life about it, not as an atom, but as a part of a related whole.

8. Finally, it may be said that the South, educationally, has passed from the stage of public opinion-making to one of constructiveness and technique, and the child has become the focus of scientific concern in law and politics. General Assemblies spend one-half of their revenue and two-thirds of their time in the passage of laws touching the welfare of youth.

The leading educational measures before the Virginia Legislature of this year were these: A bill to bring about scientific equalization of taxation; a bill to bring about coördination and unity in the whole educational scheme; the development of secondary education as the nexus between the separate parts; bills providing further facilities for the training of teachers; and a bill for compulsory education. The advent of the scientific spirit in education and in the field of economics and sociology is revealed both by the character of such legislation and by the creation of chairs of education, economics, and sociology in Southern institutions. In 1895 such studies practically did not form parts of college curricula. To-day no leading university is without such chairs, and the men in them are helping to shape and enact constructive legislation.

THE NEGROES' ACHIEVEMENT

The questions arising out of the presence of the African in American life are not

questions to be incidentally discussed. A wealth of ignorance has been expended on their discussion which quite sickens the heart. The deeper one's knowledge goes, the greater one's desire for silence and patience. I would, however, leave these thoughts with you.

There are over 8,000,000 Negroes in the South to-day. Each Southern state, resisting every effort to distribute its taxation on racial lines, is committed in its statutes and laws to the training of the Negro race at public expense. About 2,600,000 colored children are enrolled in the common schools to-day in the Southern States and 17,000 in higher institutions. Southern states have spent $120,000,000 on their education. Northern people, out of a noble sense of national responsibility, have contributed $15,000,000 to their education, while the Negro himself, out of his poverty, has expended nearly $10,000,000 exclusive of his share of taxation. The Negro race owns nearly $300,000,000 worth of property. This is a pitiful per capita wealth as compared with prosperous white conditions, but it is wealth and not pauperism. Negroes are at work in the South in more varied forms of useful labor than elsewhere on earth. They acquired land, in one state, from 1895 to 1898, at the rate of over 52,000 acres a year. In the twelve Southern States, Negro land owners in 1900 owned 173,352 farms. In Virginia, Negroes own 1,304,471 acres of land. From a condition of absolute illiteracy, practically 50 per cent. of them have become literate.

When it is reflected that all this has been achieved in the country in which they were but recently held as slaves, and in which for a time they were placed in an unnatural and absurd attitude of political control, can any sane man assert that they have lived and worked under any conditions of oppression? Is there any parallel in history to such progress under such conditions? If Negroes were fierce economic beings like Yankees, or Jews, or Scotchmen, it might be claimed that they had achieved all this in spite of discouragement and oppression, and they do deserve great praise and credit for what they have done; but everyone knows they are not such beings, and, on the contrary, they could not have achieved all this without a strong measure of justice and encouragement that entitled the people of the Southern States to the credit of having pursued toward them a juster and larger policy than was ever before pursued by higher groups toward backward and lower groups in any civilization.

Mr. John Morley thinks the Negro problem practically unsolvable, and perhaps it is, but practical men must continue to face it resolutely, quietly, justly. It is an American problem in a very concrete sense, though the genius of Southern leadership must be largely relied upon for its wise treatment. Owing to the rapid subdivision of land going on in rural life, in twenty-five years every Southern and Western city will face the Negro problem as an irritating race question, because of the presence of large numbers of Africans in their population. Essentially, the Negro as an irritating race issue is a question of the presence of the African and his numerical proportion to the whole population. In a community of ten thousand white inhabitants and twenty-four Negroes, the question is an academic one and the doctrinaire and the sentimentalist have a beautiful time with it. In a community of ten thousand white inhabitants and eighteen hundred Negroes, there is less philosophy and more silence. In a community of ten thousand white inhabitants and ten thousand Negroes, the policeman supersedes the philosopher in relative importance, and the problem moves along, as best it may, over the rough ways of democracy.

Perhaps the chiefest political constructive act of Southern genius in reference to the Negro has been the limitation of the whole idea of manhood suffrage, thus removing the blacks from politics, and centering their thought on industrial life, removing frightful temptations from the politics of the white people, and, in a large way, placing the whole idea of suffrage on the highest plane possible in a republic. When all of its ragged edges and incidental injustices have been worn away, the suffrage regulations of the South in the last decade will be seen to have been wise and philosophical.

WHITE OPINION AND THE NEGRO

At the court of present public opinion in the South, the following things, as to the Negro-American, have been settled:

1. The white race shall control the political development of the Southern States, as it will and ought to control the political development

of the rest of this republic. As we were European in our origin and structure, so we shall remain, refusing to become either Asiatic on one side of the continent or African on the other.

2. Agreement has been reached that, in insisting upon absolute social separateness, the South is pursuing a far-sighted policy of justice, both to the Negro as a race and to the higher groups that inhabit this nation and to civilization at large.

3. It has been settled that the emphasis laid by Armstrong, the most heroic figure in the whole struggle and the wiser leader of the Negro race, upon training in the industrial and manual arts, promises the best returns in the development of the masses of that race as useful factors in economic life.

4. It has been settled that no form of peonage or helotry, perils worse than chattel slavery, shall creep into our life.

5. It has been settled that the Negro, having humanity, personality, economic value, shall be trained for citizenship in this republic, and that the South itself shall exert intelligent and determining influence upon the character of that training, because it is its duty so to act, and because extraneous influence may carry the Negro further from understanding and sympathy with his environment.

6. It has been settled that the final policy of the South toward this backward man shall be a scientific habit of investigation as to the facts of his progress, coupled with an intelligent interest in his development, causing its thinking people to discriminate between the good individual Negro and the Negro considered as a mere perplexing, evil problem in sociology. The best Southern thought on this matter is neither optimistic nor pessimistic, but watchful and steady. The point of view likely to prevail finally is the point of view that gives foremost place, not to the Negro as a pathetic, upward-striving figure, or the Negro as a tragic burden, but to the standards of American character as affected by the presence of the Negro in this largest democratic undertaking of the white race. Under changed conditions and in a new age, this viewpoint is exactly in the spirit of Abraham Lincoln as expressed in his famous letter to Horace Greely: "What I do about slavery and the colored race, I do because I believe it helps to save the Union; and what I forbear, I forbear because I do not believe it would help to save the Union."

Has any group of human beings ever caused so much social and political ferment and change as the American Negro? I wonder if this American Negro ever thinks of the relative care bestowed by human society upon him and the 3,000,000 white men who inhabit the thin soil of the coastal plain, the Piedmont Hills, and the Appalachian Mountains. For the Negro, rivers of blood have flowed, millions of treasures have been spent, patient lives have been dedicated, and in virtue of all this expenditure of energy, genius, and consecration, a distance has been created between him and his grandfathers equal to the distance between the jungle and the university. The lot of the Piedmont and Appalachian white man has been forgetfulness, ignorance, and neglect. The world might as well understand that the Southerner is done with this neglect forever. He sees that the redemption of his community lies primarily in the restoration and development of the white population. Without such development the most remarkable story of individual Negro achievement will tend to become merely an interesting racial phenomenon. As Mr. Albert Shaw has recently demonstrated, the progress that is now evident along all these lines, in the cotton-mill, the school, the improvement of agriculture, "represents the most transforming movement in American society that the new century can show." The destruction of slavery made possible the social and economic unification of this continent. When these three million white men, scattered over Southern farms and in Southern towns and cities, are trained and developed, the structure of Southern society will actually realize unity and similarity to that of other regions where white men live and work.

No amount of prophecy is going to settle this question, yet it is not prophecy but fact to assert that the Negro race is steadily declining in the South, and must continue to decline in relative numbers; that he will remain socially distinct; that he is yet to undergo the fiercest trials that come to backward races striving to forge to the front in an old civilization, and that the nature of this ordeal will increase the migratory impulse of the Negro. Nearly a million Negroes now live outside Southern limits. In thirty years that number will be increased 50 per cent. Already it is the ultimate fate of the Negro that is in the balance

in America, and not the fate of the Southern States, as has been pointed out by Mr. Philip Bruce. The remarkable acquisition of land by the Negro, even if much of it be mortgaged, is creditable to his sagacity and a testimony to the amazing freedom of opportunity accorded him. His opportunities in this direction exceed those of the farmers of England to-day. It should be held in mind, however, that strength alone can guarantee permanence in his land holdings. Weak men cannot permanently hold land, or continue to acquire land. Land is of the essence in the making of any civilization, and the mere right to acquire it is a freeman's privilege. If a landholder, in a complex order, is not worthy of his land, society, sooner or later, finds a way to take it away from him. The harshest experiences of the black people are yet to be, for the South must come to treat them as the world now treats them, demanding that they develop not only manual and industrial power but those moral qualities necessary to win freedom through fierce competition. In no other way can real freedom ever be won by a man or a race. Freedom is a conquest, not a bequest. Considerations of national welfare, therefore, as well as solemn human justice, demand that such training be given to this African element in American life as will enable it to face its supreme struggle with hope in its heart and will safeguard the quality of American citizenship.

CONSTRUCTIVE RURAL CHANGES

Agriculture remains, as of old, the absorbing economic interest of Southern life. Agricultural farm-values aggregate to-day $4,000,000,000; farm products $1,300,000,000, and 4,000,000 males are engaged in this work. As the structure and arrangement of this industry determined ante-bellum civilization, so its re-ordering in the new age is the most potent factor in determining the social structure of the new times. The following constructive changes are coming about, tending to modify the conditions of rural life and to give to Southern society a certain uniformity and likeness to the rest of the nation, which are the conditions of real democracy and nationality.

1. The great plantation has been supplanted by the small farms, constantly increasing in number. The older rural gentry and their sons have gone to the cities, forming a very formidable element in New York City itself, including Wall Street. A new and potential citizenship has taken possession of these small farms. This new citizenship is demanding educational facilities, good roads, free mail delivery, telephone systems, trolley lines, and an era of diffused intelligence must shortly appear, assuring a fundamental change for the better in the attractiveness and the general social and material opportunities of country life. These are men whose needs and whose influence will modify the old and mold the character of the future leadership in Southern politics. One who knows their spirit has recently put their creed into this form: "I will never vote again for any candidate for a state office who does not have some well-worked-out programme for conserving and developing our rural communities, for constructing good roads throughout the state, for placing a respectable schoolhouse and good school in easy reach of every child, for placing in every one of such schools well-trained and amply paid teachers, and for making our institutions of charity and higher education equal to any. I am tired of hearing men talk, and of voting for men merely because they support a certain man for President and for reward for party service."

2. The unit of the small farm necessitates intensive and diversified production. Intensive and diversified production presupposes a knowledge of scientific agriculture. Scientific agriculture does not demand hordes of untrained labor in order to reap its richest rewards. Whatever labor is employed must develop skill and power, or be driven into the cities to factory employment or household labor. The society necessary to the successful conduct of the small farm-unit will furnish a new backbone to our social structure, based on respectability, simple thrift, and contented intelligence. The new rural population will for generations lack the charm of the old, but by means of its very diffusion and its manifest possession of a certain general level of sturdy power and freedom of opportunity, it will contribute strength to the life blood of the whole organism.

When, under the inevitable influences of that great new industrial subdivision, ill-tilled and untilled Southern lands are made to quadruple their productiveness, when lands now yielding 20 bushels of corn to the acre are made to yield 50 or 60 bushels, as is being

done in numbers of localities, the basis of material prosperity will be gained for the attainment of these higher things which the heart of man desires. There can be no lasting growth in schools without increasing earning power to promote such growth. In 1860, 35 per cent. of the soil of Virginia was improved. To-day 55 per cent. of that soil is improved. To-morrow, 75 per cent. of it will be improved, for last year 2,400 farmers from other states came into Virginia and invested $10,000,000 in farming. In the South Atlantic States, the area of improved lands has increased 62 per cent. since the passing of slavery, while the increase in the actual number of farms doubled between 1880 and 1900. The production of garden vegetables, an unknown enterprise in 1861, left $85,000,000 in Southern pockets in 1900.

ACHIEVEMENTS IN INDUSTRY

It should not be imagined that this diffusion of rural population means stagnation or decay of urban life. On the contrary, it exists side by side with the resistless growth of cities and towns. The new, small landowners, unable to make of their lands a place of production for all their supplies, must look for these supplies to the towns and cities. The poorer whites and the landless or improvident Negroes flock to the cities to partake of the prosperity arising from the industries gathered there, and a stream of white, skilled immigrants, thin but steady, passes to the towns to supply industrial needs. Two hundred thousand white settlers came into the South in 1906, and bought two million acres of land.

While the states of the South still constitute the principal agricultural division of the nation, it was clearly inevitable that its changed economic point of view should cause this section to cease to be merely a producer of raw materials, and become a converter of these raw materials into useful products. The Southerner did not have to learn this industrial habit. He simply had to re-learn it, for he fought hard to make head against the logic of slave economics and the mental paralysis caused by the protective tariff. From 1845 to 1860 he built more miles of railroad than the New England and Middle States, and expended over $60,000,000 on mills and factories. Slavery gone and its point of view effaced, the whole process seemed clearer and worked itself out more easily. Five hundred million pounds of cotton is an average South Carolina crop. Thirty years ago, Massachusetts bought this crop at 7 cents per pound, leaving $35,000,000 in South Carolina pockets. Massachusetts then converted it into cloth at 20 cents per pound, and turned into its own pockets $100,000,000. Converted into finer forms of cloth, the net return might well be $200,000,000 and upward. South Carolina now does its own converting into cloth, and keeps the $100,000,000 change.

It was not difficult to perceive that what was true of cotton might be true also of wood, iron, and wool, and the whole world of raw materials. Six thousand enterprises proposing to convert such raw materials into salable products began operation in the South in 1906. To-day it is using its own accumulated wealth as working capital. Its total property values in 1908 exceed those of 1860 by $6,000,000,000. In the decennial period, 1890–1900, the value of all manufactured products increased $1,250,000,000, and the estimated increase of the true value of Southern property in the past six years has been at the rate of $3,000,000 a day. On the basis of percentage of increase, the South's gain within the last six years is 48 per cent., and that of the rest of the Union 32 per cent. In other words, the old patriarchal staple states in twenty years must become the fiercest industrial region in America, converting into useful articles the splendid wealth of its fields and forests and mines. The giant agent that has made and will continue to make all of this industrial energy profitable, must be the railroad. We are engaged just now in chastising, somewhat hysterically, the spirit of this great giant, and it unquestionably needed regulation, but we shall be merely stupid or self-destructive if we let ourselves forget either its statesmanlike part in our present upbuilding, or our absolute dependence upon it and its imperial methods for our future growth. It is well to settle the fact that the railroad is a public servant, but a solemn duty rests upon our legislatures to-day to approach the study of the railroad and its problems with the patient, scientific care that its importance as the greatest of all industrial servants demands.

ACHIEVEMENTS OF CHARACTER

Passing from the field of accomplishment to the field of character, three sturdy achievements appear:

1. The ability of the Southern people to maintain their character unmodified and their spirit so unweakened by appalling political misfortune and economic adversity as to enable them to transmute the discipline of defeat and suffering into strength for permanent rebuilding.

2. Their refusal as yet to surrender their moral loyalties and their social and religious conservatism to the grandeurs and temptations of an epoch preoccupied with conquest and acquisition. The fancied home of the cavalier is the home of the nearest approach to Puritanism and to the most vital Protestant evangelicalism in the world to-day. We may attribute some of this conserving power to homogeneity, absence of urban masses, or provincialism. One man out of one hundred and thirty in the Southern States is of foreign extraction or birth, and hence older ideals linger more stubbornly, but essentially it is due to the sincerity of Southern life during the period of endurance, its poverty-bred simplicity, its belated appearance on the plane of industrial ambitions, and its ancient conception of government as something to serve and not something to use and profit by. It seems to me a godsend to America that a good section of it is not yet quite "up to date."

3. The emphasis of Southern thought has finally passed from an exaggerated individualism to a firm belief in the potential value of the common man as the truest asset of a democracy. One hears more of communities and their aspirations and their developing genius for concerted action, than of individuals and their ambitions. Galveston, New Orleans, Atlanta, Richmond, and such cities now hold the stage as centres of thrilling civic evolution, rather than any picturesque individuals symbolizing those communities.

The social centre of gravity of the South to-day is neither the courthouse nor the hustings, but the schoolhouse and the university, and its prevailing mood is social sympathy.

The lasting literature of the period, the literature of Harris and Allen and Page and Craddock, in its closer touch with mankind at large, consideration for the qualities of humble folks, divorce from overwrought sentiment, and democratic sympathy, reveals, as in a looking-glass, this change of spirit. The unusual honesty of state and municipal governments in the South for thirty years is simply a survival of old usage but, superadded to this ancient habit, may now be noted not only a strong sense of social obligation but a definite expression of moral enthusiasm for plain men and women. The most vivid illustration of this moral enthusiasm is the present prohibition movement. The phenomenon of the conquest of the state of Kentucky by the prohibition idea cannot be lightly accounted for, nor accounted for at all, save on the theory that it is a definite expression of moral leadership and moral purpose determined to sweep out of the way of struggling men and women desperate evils and temptations besetting them as they reach toward a finer life. This movement, however lacking in finality, is simply a symbol of an altered social point of view.

THE POLITICAL OUTLOOK

Southern politics is permeated with this thought of social progress and community effort. One often hears with regret that the supreme question of the domination of the white race has brought about political conditions in which only one party exists. But this is not quite true. Internally there are two parties under one name; both standing in varying degree for growth and progress in community-life though relying for differentiation too much on personalities and non-essentials, very much as our national parties do to-day. The ante-bellum Southern voter was perhaps the best informed man in America on national politics, and decidedly careless as to the needs of his own township. He knew all about the Kansas and Nebraska Bill, and did not pester himself about the local schoolhouse. Now, Kansas, like the primrose on the river's bank, is just the plainest sort of Kansas to him, and Nebraska is chiefly interesting as saving him the trouble, every now and then, of deciding for whom to vote for President. Now his interest in the Philippines, or even in the Presidency, is mild as compared to his zeal for the schools and roads of his county. It is the era of domestic politics, and of absorption of the people and the politicians in the welfare of the masses at home. Consulships and ministers plenipotentiary are as remote to his political taste as old wine or caviare to the palate of the working man. This detachment from national politics is an abnormal and a temporary political condition. For the South's sake and the nation's sake,

this condition must pass, for the Southerner is a healthy-minded political animal, who enjoys having a hand in his country's government, and his country will be lacking in good sense if she does n't find a way to make use of his kind of strength. The reuniting of Southern political ability to national service must wait upon time to free it utterly from hesitation and fear arising out of the issues due to the presence of the African in our society and the influence upon our nerves of old horrid memories. When a perception of actual conditions and the spread of intelligence has swept this fear out of the minds of the masses of the people, they will also sweep out the reign of any leadership dependent on that fear. There will be a rebirth of party government, and two or more parties representing the intelligence and patriotism of these states will divide, debate, and consider issues on their merits. An inherently capable and pure political genius will be loosed, and freed to play upon complex and vital national questions. By that time there may be a rebirth of real parties in the nation itself — real parties with definite issues, instead of old names with the same issues.

Neither solid North nor solid South can then obtrude their opaque masses between just principles and the vision of patriotic men. Southern men, neither better nor abler, personally, than some now timidly and in desperation mentioned for the Presidency, will naturally win the Presidency, because they will incarnate the things the people desire a President for. After a half century of national effacement, the South is cool-headed enough to know that the regaining of its prestige in Federal politics will be brought about in no frantic, hysterical way, but by educational influences and profound changes in point of view. When some strong Southerner, like Daniel, or Culberson, or Williams, or Hoke Smith, harnesses himself to the idea of tariff reform, or to some patient, just, scientific method of establishing sympathetic relations between industrialism and democracy, and drives these ideas into the minds of the American people, no outworn bugaboos can keep such a man out of the highest service needed by the country.

Notwithstanding all these considerations, it is my belief that this Southern detachment from national affairs has been a good and necessary thing for the era just passing, affording to the men of that region freer opportunity to emphasize local self-government, to rediscover it, as it were, in concrete ways, to perceive the identity of things social and political, to set up neighborhood unity and self-sacrifice in public affairs as proper ideals of growth; to learn, in short, to depend upon themselves, instead of upon Federal direction or Federal support. It is a strange happening that, by an absolute reversal of social emphasis, the Southerner should again find himself, not only defending metaphysically his old best-loved dogma of local self-government as the very core of democracy, but re-rooting it in the popular heart as a form of efficient machinery for beautifying and enriching the state.

As our revolutionary age demanded human enthusiasm, and our Civil War period steadfast courage, and our industrial period imagination and daring, and our rebuilding a faith in education and sympathy with men, so, for adequate leadership in the new age about to be, the Southerner is developing a certain scientific-mindedness in intellectual approach and mental habit. I mean by the scientific-minded man one who observes closely, who has mental patience, who thinks with his brain and not with his emotions, who is satisfied with the whole truth and with nothing less. His reverence is for the past, but it is tempered with the common-sense patriotism which gives him enthusiasm for the future. He is at home in the republic, and a sense of mastery of the methods of his age, and perception of his kinship to all the world, have freed his energies and widened his vision. He has not attained wholly the ideal mental condition. He would be rather lonesome in America, if he had reached it; but he is moving that way.

I mean by common-sense patriotism, the patriotism that impels a man to make things better about him, to sympathize with the plain man at his task, and the child of that plain man reaching up into life, to have a hand in building cities and in rescuing waste lands, to shed light and hope, if he can, upon multitudes of both races reaching up after better things.

Steadfastness of spirit and purity of thought about public service have been stamped into the life of the South by its strange, sad history. There are now, added to these moral tonics, social sympathy and practical faith in common man, and these new ideas have been won out of such experience as to guarantee their

genuineness and permanence. This nation should not forget that such qualities are spiritual forces needed to combat coarse power and indifferentism to finer issues. Imperialism must modify, but will not wholly destroy this spiritual quality. Our country is a venerable example of republican government, but, after all, as a society, it is young and unformed. The golden age of the Southern half of this unformed society is about to dawn, — an age of wealth, of buoyant power, of freedom to run an unhindered race. Golden ages are the ages of danger to the character of individuals or peoples. The eternal merits and treasures of our risen empire, standing upon the threshold of its golden age of peril and opportunity, believe me, my friends, are not its mighty potencies of wealth, but a clear idealism bred in the bone, a tutelage of fidelity, an instinct for integrity, an aptitude for ethical insight powerful enough to steady the course of this great experiment, as it encounters its recurring moral crises, and to contribute abundantly to the realization of the old hopes and faiths that give such solemnity and majesty to American beginnings.

THE HIGH TIDE OF PHYSICAL CONSCIENCE

THE AWAKENED INTEREST IN IMPROVING THE NATIONAL HEALTH. HOW IT CAN BE CRYSTALLIZED INTO CONCRETE RESULTS

BY

DR. LUTHER H. GULICK

THAT there is a tide in the affairs of men, with flood and ebb, we will admit readily enough, even without the added assurance of the poet. All about us, if our eyes are open to see, we discover the subsiding of certain great tides of popular feeling. Equally clear is the rising of others, slowly, perhaps, like the water-line on a shallow beach, or as swiftly as a tidal wave. Public interest goes by pulses.

The old-fashioned revival habit illustrates this pulse-curve rather distinctly. First, there is general apathy — a dead level — then a small impulse of curiosity or stirring of dormant conscience, then under the lash of exhortation and rebuke, a real rise of interest, then enthusiasm; a great wave of popular excitement that seems powerful enough to shift the very foundations of the community; the final triumph of virtue over vice; the millennium coming on at last. And then, just why, no one feels quite certain, this spiritual exaltation shows signs of flagging, begins to subside, irresistibly, inevitably; the tide is past flood; the yearly converts are already backsliding. Iniquity, little the worse for its brief ducking, begins once more to emerge, like Ararat after the Deluge; and soon we are all back, pell-mell, in the old life once more, almost — if not quite — as wicked and unregenerate as ever. The tide is at ebb. But next year we will be revived again.

This example might, perhaps, be accused of pessimism; but its intention is simply to point to the familiar truth that any wave of popular interest, no matter how extensive or profound it may seem to be, is bound to subside some time. It is in accordance with the fundamental principles of psychology, the laws of attention, which set forth the impossibility of holding a single object in the focus of consciousness beyond a certain length of time. But this great wave, until it passes its apex, has the power — and may exert it — to accomplish permanent and vital results; results that will endure long after the special impulse that brought them into being has gone into oblivion. It is in a high degree dynamic. Whether it does accomplish anything of moment or waste all its energy in splash is largely a matter of effective direction.

The conventional revival impulse did not aim at concrete, hard-fact results; it directed itself too exclusively at the "inner" life, at soul-saving; it did not anchor itself anywhere; was too much an affair of emotion and testimony and amen shouting. A genuine and

rational reform movement seeks embodiment immediately in some external, tangible form; it has an objective goal; secures, it may be, a new and well-drafted tenement law, creates some effective implement or piece of machinery that will remain in operation after the popular impulse has ebbed. Great things cannot be accomplished without the popular impulse, but neither can they be accomplished by that alone.

MARKING THE HIGH TIDE

The great cathedrals are monuments, exerting their inspiration for all time, to one great tide of religious feeling. They could not be built to-day. Religious sentiment will never again express itself in that particular manner. But humanity will always be richer for them. The great incorporated missionary societies of England and America are the permanent fruit of a tremendous enthusiasm for evangelization that swept through the churches six or seven decades ago. In recent years the wave has been subsiding, but the organizations are there in the field, with foothold and equipment. Three decades ago there was a strong flux in the temperance cause, then a long period of subsidence when it was well-nigh impossible to arouse any public interest, and now it looks once more as if the attention were going to turn in that direction, and with some likelihood of achieving more important results than the signing of total-abstinence pledges.

Empire-building, sectarian religion, classical education — all seem to be on the ebb just now, so far as public interest is concerned. Clean politics, socialism, nature culture, are all on the ascendant. One need only glance at a magazine stall to discover what the waves are that are rising or at their crest. The wise man, who wishes to serve humanity in large ways, will take the tide at the flood, before it is too late, and turn his energy, while it lasts, into channels of practical service. More than that, he will find some way of keeping it at work even when the main impulse has passed. Some of this present energy can be dammed up. A good law, a permanent fund, an established organization — these are only a few of the ways of insuring the future out of the superabundance of the present.

The man of large aims will not hurl himself against a stone wall. He will not put himself where the odds are all against his achieving anything of moment. There are more than enough good causes to go around. Some are in flood, some in extreme ebb. A man must select, for, as the Scripture saith, a live dog is better than a dead lion. And for that matter, there are plenty of live lions, if a man wants his match. Also it has been said that the iron should be struck while it is hot. No great results need be expected from striking away at cold iron, either before or after it has been to the forge.

THE INTEREST IN PHYSICAL WELL-BEING

Very conspicuous among the rising interest-impulses of recent years is that which is concerned with the claims of physical well-being, what has been termed the physical conscience. This new sense of responsibility for things bodily is very wide just now. Interest runs higher in this direction than ever before in the history of our civilization. It is a wave of tremendous magnitude and power. This interest has arisen almost within the memory of the present generation, and it has not been conspicuous for more than fifteen or twenty years. It may be that the reason for the physical conscience waiting so long below the horizon had to do, in one way or another, with the old doctrine that spirit and flesh were deadly foes — the doctrine that had found voice in the direction of the Apostle Paul "to mortify therefore your members which are of the body" — in order that the soul, the one important thing, might be stimulated to fuller growth. The general conviction was that affairs of the flesh would look out well enough for themselves; in New England, especially, the emphasis was always put upon intellectual things.

How far any ideal of a personality rounded on all sides had been lost is evidenced by the state of affairs we learn of in our colleges not more than five or six decades ago. There, if anywhere, among the choicest youth of the country, one would have expected to find some decent partnership of muscle and brain.

"I am satisfied," wrote Dr. Oliver Wendell Holmes, "that such a set of black-coated, stiff-jointed, soft-muscled, paste-complexioned youth as we can boast in our Atlantic cities never before sprang from loins of Anglo-Saxon stock."

THE FIRST COLLEGE ATHLETICS

It took a change of the whole popular conception of what life is, such a change as came

with the growth of scientific knowledge and the breaking down of certain religious barriers, to give physical conscience a chance to express itself with any adequacy. By 1826, to be sure, a first wave of interest in bettering the physical condition of college students had made itself felt. Harvard established gymnastic grounds equipped with a few machines; and she was followed a little later by Yale, Williams, Amherst, and Brown. But no one knew how to direct the movement effectively; the interest died out within five or six years, and the gymnasiums were abandoned.

It was not until about the middle of the century that attention went to the subject again; this time in a stronger wave. Systematic physical training was incorporated in the curriculum of Amherst. The innovation took hold and kept its hold. It was the real beginning of modern college athletics. To-day almost no college is without its gymnasium and athletic fields. With the majority of students the athletic interests of their college — whether or not they are personally engaged in them — take precedence over every other thing. More than a million dollars goes into athletics every year. For better or worse, the man who does not share in the athletic enthusiasm has relatively little of the general college life. It is now almost the only phase of college life that has any interest for the general public — witness the newspaper space given to the games. The same enthusiasm is being manifested everywhere, in the public schools of the country, in the young men's societies — such as the Y. M. C. A., where the attendance has tripled within the last ten years — in the extension work of the churches and philanthropic organizations, in the free public gymnasiums of certain cities. Always athletics have the greatest appeal wherever you look.

PLAYGROUNDS FOR CHILDREN

Then there is the playground movement, which recognizes the physical rights of children. Though scarcely ten years old in this country, its growth has been little short of startling, almost every large city of the North and East has already some free playgrounds. Boston has 22. New York has 100 vacation playgrounds and 26 evening recreation centres. Washington has 23 playgrounds. In less than three years, Chicago has appropriated $10,000,000 for small parks and playgrounds. The Chicago recreation centres provide indoor and outdoor gymnasiums for men and women, sand-gardens and wading-pools for the smaller children, ball fields for the bigger boys and men, and outdoor swimming pools. There is a national playground society and there are playground associations in a dozen of our cities.

As significant, perhaps, if not more so, is the universal interest, of only a few years' growth, in the subject of personal and public hygiene. "The city of Philadelphia spends more annually in the interest of public health than did the whole English-speaking world a century ago." The sanitary condition of the tenements is now a matter of official inspection. Free public baths are provided in many cities. Restrictions have been placed upon the employment of child-labor and the labor of women. The sanitary condition of the factories is the subject of official inquiry and of legal responsibility.

Hygiene is among the required subjects of the public school curricula throughout the country. Medical inspection of the schools, first introduced in New York, in 1892, is now established — with a greater or less degree of working efficiency — in a number of American cities. Two international congresses on school hygiene have already been held, one in Nuremburg, in 1904, the other last summer in London.

Pure-food laws are another sign of the awakening. The popularity of "health foods" and the wide interest in the problems of diet, are other signs. Magazines devoted to physical training, to athletic sports; articles everywhere on good health and right living, indicate the enormous, unprecedented interest which the American public feels just now in setting life right on the physical side.

Has the tide reached its flood yet? It is hard to say. But one thing is certain; there will be a turn eventually — a slow but inevitable subsidence. It is neither good science nor good sense to disregard this fact.

Pure food has already secured its legal status and governmental machinery. A national bureau of health, to do for us human beings what we are already doing for animals, is being forcefully urged, but has not yet arrived. Our government still pays far more attention to the health and disease of pigs and horses than it does to that of children. It studies the raising of good wheat and corn but as yet

pays no attention to the most important crop of all — our chief "infant industry"— the raising of healthy children. It seems as if every sane man and every true woman would want to help this movement on until it has its governmental status and adequate social machinery.

We are educating 18,000,000 children in schools. We are compelling them to be seated much of the time for five hours per day. The rooms in which they are seated are sometimes well ventilated — sometimes not. We are forcing the eyes of children to do the work of reading to a far greater extent than has been attempted in any previous century. We are extensively lessening the kinds of play that children can carry on.

This whole matter of education profoundly affects the health and vitality of city children; and yet, almost without exception, boards of education are prescribing hours of home study, the size of type in the text-books, length of line, with the page that children shall use during their school life, the kinds of seats they should sit in, the amount of light they should have, the character and length of their recesses, and a hundred other things which affect their health — without having the advice of competent medical authorities.

One of the great things that we need to do here in America is to get boards of education to have thoroughly qualified, competent groups of specialists, who shall have the same authority with reference to the health of school children that the school architect has with reference to the school building or the Committee on Supplies of the Board of Education has with reference to the purchase of coal, chalk, ink, and so on.

A city such as New York should have a medical officer working immediately under the Superintendent of Schools. Under him there should be seven or eight specialists, for no one man can be a specialist upon every branch. One man should know all that there is to be known with reference to the children's seating, particularly as to its effects upon the curves of the spine. He should be an orthopædic surgeon and should see to it that so far as possible the conditions under which children sit in the schools should not result in permanent deformity. Another man should be a specialist in reference to vision. He should be informed with reference to the character of the writing used in the schools, the type in the books, and other matters of a similar character. There should be a specialist on nervous diseases who should know when children are overworked, who would work out the whole problem of home study in a way to utilize the most recent and important scientific findings. There should be a specialist on the diseases of the nose and throat. We find that there are many children whose growth is interfered with because of hypertrophied tonsils and adenoids. We should know what relation the school bears to these deformities.

These men — with one or two others working in similar ways — should form a research group that should bring to the service of the 695,000 children in the New York City public schools the very latest information available as to how health and vitality may be conserved by the schools. Such a corporation as the Standard Oil Company would not dream of conducting its affairs without the counsel of the technical chemical expert. These men should do for the Department of Education just what the Standard Oil chemists do with reference to the chemical processes involved in the business of the Standard Oil Company.

There should be, in addition to these men, a group of physicians to go about in the schools, ascertaining the facts regarding ventilation, heating, lighting; who should examine all the children for the purpose of detecting deformities of hearing, seeing, etc., so as to effect — either directly or through the parents— the removal of those disabilities that interfere with the profiting of the child by the education that is being provided by the city. The Board of Health should retain its hold on the inspection for contagious diseases. This is work of an entirely different kind. The Board of Health is in the main doing this work effectively.

Before this present great wave of interest in the health of children subsides, we must get our boards of education to incorporate into their structures this provision for the creation of departments of school hygiene.

Without a basis of good health for our children our other efforts are of little value. Our education, science, literature, architecture, and even our religion are of no avail unless the human race itself remains healthy and sane. The schools are now a predominant influence in the lives of our children and must be guided toward health.

The World's Work

WALTER H. PAGE, EDITOR

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Country Life in America **The Garden Magazine-Farming**

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REAR-ADMIRAL ROBLEY D. EVANS

WHO WILL REACH THE AGE OF RETIREMENT FROM THE SERVICE ON AUGUST 18TH. HE HAS BEEN IN COMMAND OF A FLEET FOR EIGHT YEARS AND HAS SEEN MORE ACTIVE SERVICE THAN ANY OTHER OFFICER IN THE NAVY

[*See "The March of Events"*]

THE WORLD'S WORK

JULY, 1908

VOLUME XVI NUMBER 3

The March of Events

A VERY great change is taking place in American thought and character, as any man may see who studies the two strongest forces at work in our democracy.

One of these forces is the modern power of great organization and concentration of wealth — the rush and volume of our restless activity in a new land, with new tools and with the gigantic power that they give to develop, to exploit, to combine, to build up industrial power and financial strength, and to concentrate them. In spite of temporary halts in this unprecedented growth of power, we have come, during the last few decades, a greater distance on this road than any people ever before traveled in all their history. This first great force, if it were untamed or unguided, would lead to the building up of a permanent privilege in industrial and financial power in the hands of a few. The other great force is individual rights, which is the very essence of a democratic order of society.

There was a period of fear lest the power of industrial and financial organization might overcome individual rights. But the thing that is happening now is that individual rights is proving itself the stronger of the two. It is asserting itself — in this first decade of the new century — more vigorously than it ever asserted itself before in our history.

We are witnessing the general turning of the power and even of the wealth of the few to the uses and benefits of the many. We are giving the control more and more into the hands of the people. We are changing our educational methods really to reach the masses. We are seeing the wealth of the richest men bestowed to further the public good, with a certainty of aim never before achieved. We are demanding that rural life be organized and enriched. We are bringing the management of corporations into publicity. We are coming to regard our unrestorable gifts of nature as the heritage of the whole people. We are using the machinery of combination for preventing disease, for preserving the public health, for ministering to the public convenience and even recreation. In a word, the people are coming themselves to use these great new tools that seemed once a threat to them.

True our political methods and activities lag. They are yet in the period of privilege and inefficiency — in the main. But the large social forces which public opinion controls are making for the betterment of the common life of men and against the growth of harmful power by the few.

A wide vision of contemporary life inevitably points to this conclusion; and a few of the reasons for such faith are set down in this magazine — the annual Uplift and Educational number. Our democracy has taken the gigantic power of modern progress and is turning it in a thousand ways to the public good. It is used and will henceforth be usable less and less for the chief benefit of the few.

And thus what once seemed the great danger to a free society is coming more and more to further its aims — that, too, without a class war or any violent clash.

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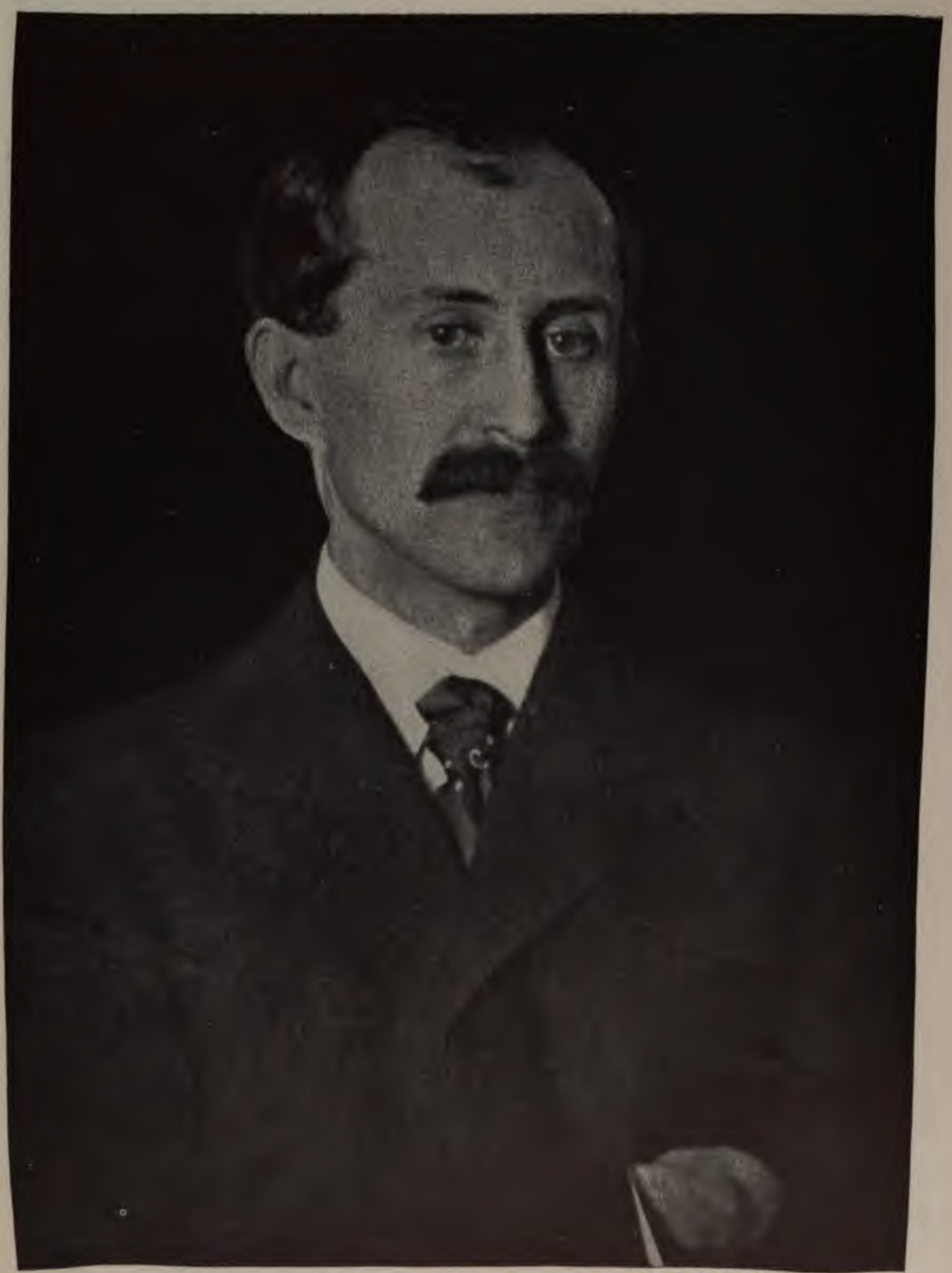
MR. GIFFORD PINCHOT, UNITED STATES FORESTER

TO WHOM MORE THAN ANY OTHER MAN IS DUE THE REVOLUTION IN THE THOUGHT OF THE PEOPLE ABOUT THE PROPER USE OF OUR NATURAL RESOURCES

[*See "Gifford Pinchot, Forester," page 10427*]



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MR. ORVILLE WRIGHT

WHO WITH HIS BROTHER HAS MADE THE MOST SUCCESSFUL EXPERIMENTS TOWARD PRACTICAL AERIAL NAVIGATION

[*See "The March of Events"*]

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THE WRIGHTS' MACHINE IN FLIGHT NEAR KILL DEVIL HILL, N. C.

IN PREPARATION FOR THE GOVERNMENT TEST TO BE HELD IN AUGUST AT FORT MEYER, VA.

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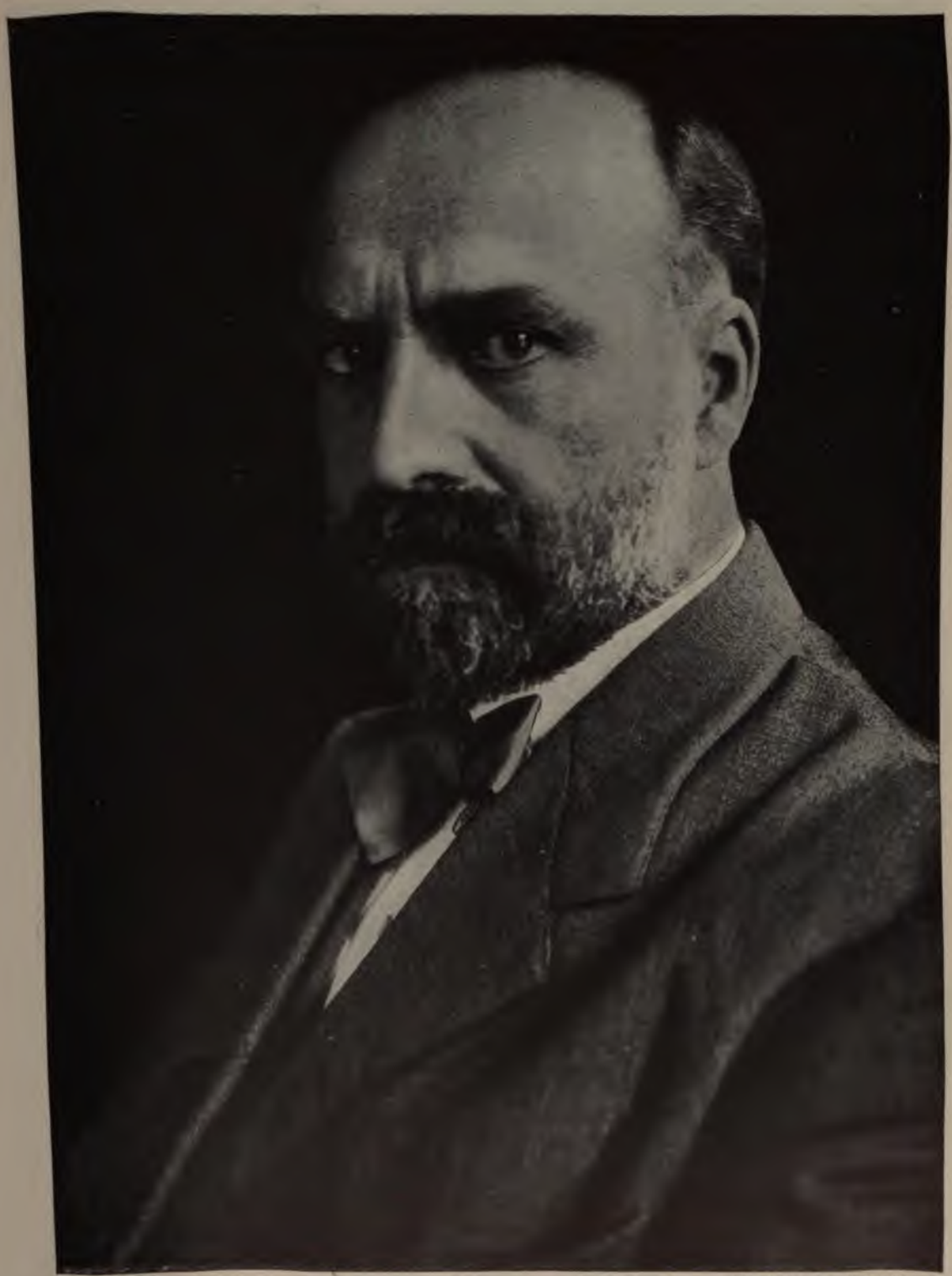
THE BATTLESHIPS ENTERING PUGET SOUND

EARLY IN JULY THE FLEET WILL LEAVE SAN FRANCISCO FOR THE REST OF ITS TRIP AROUND THE WORLD

THE CROWN PRINCE FRIEDRICH WILHELM OF PRUSSIA

[*See "The Training of a Prince," page 1087*]



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DR. ELMER C. BROWN

UNITED STATES COMMISSIONER OF EDUCATION

[See "New Work in Education," page 1054

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PROFESSOR HARRY A. GARFIELD

OF PRINCETON UNIVERSITY, WHO NOW BECOMES PRESIDENT OF WILLIAMS COLLEGE

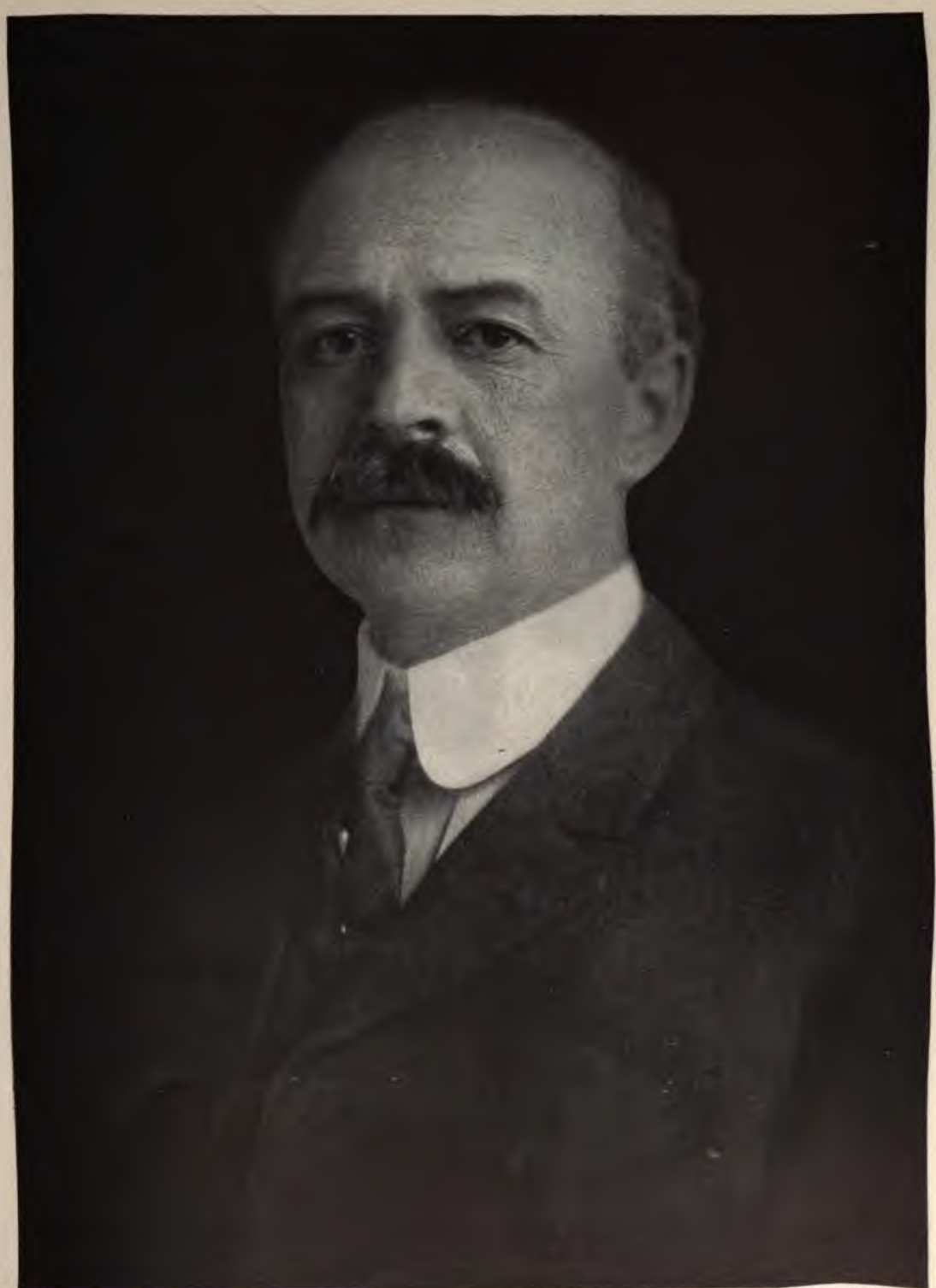
PROFESSOR EDGAR ODELL LOVETT

PRESIDENT-ELECT OF THE WILLIAM M. RICE INSTITUTE, AT HOUSTON, TEX., WHO WILL SPEND A YEAR OF RESEARCH ABROAD STUDYING HOW BEST TO USE THE $7,000,000 FOUNDATION FOR THE ADVANCEMENT OF LITERATURE, SCIENCE, AND ART, FOR WHICH IT WAS DONATED

MRS. RUSSELL SAGE

WHOSE BENEFACTIONS ARE DIRECTED TOWARD THE MOST COMPREHENSIVE SOLUTION POSSIBLE OF THE PROBLEMS OF POVERTY

[*See "The March of Events"*]

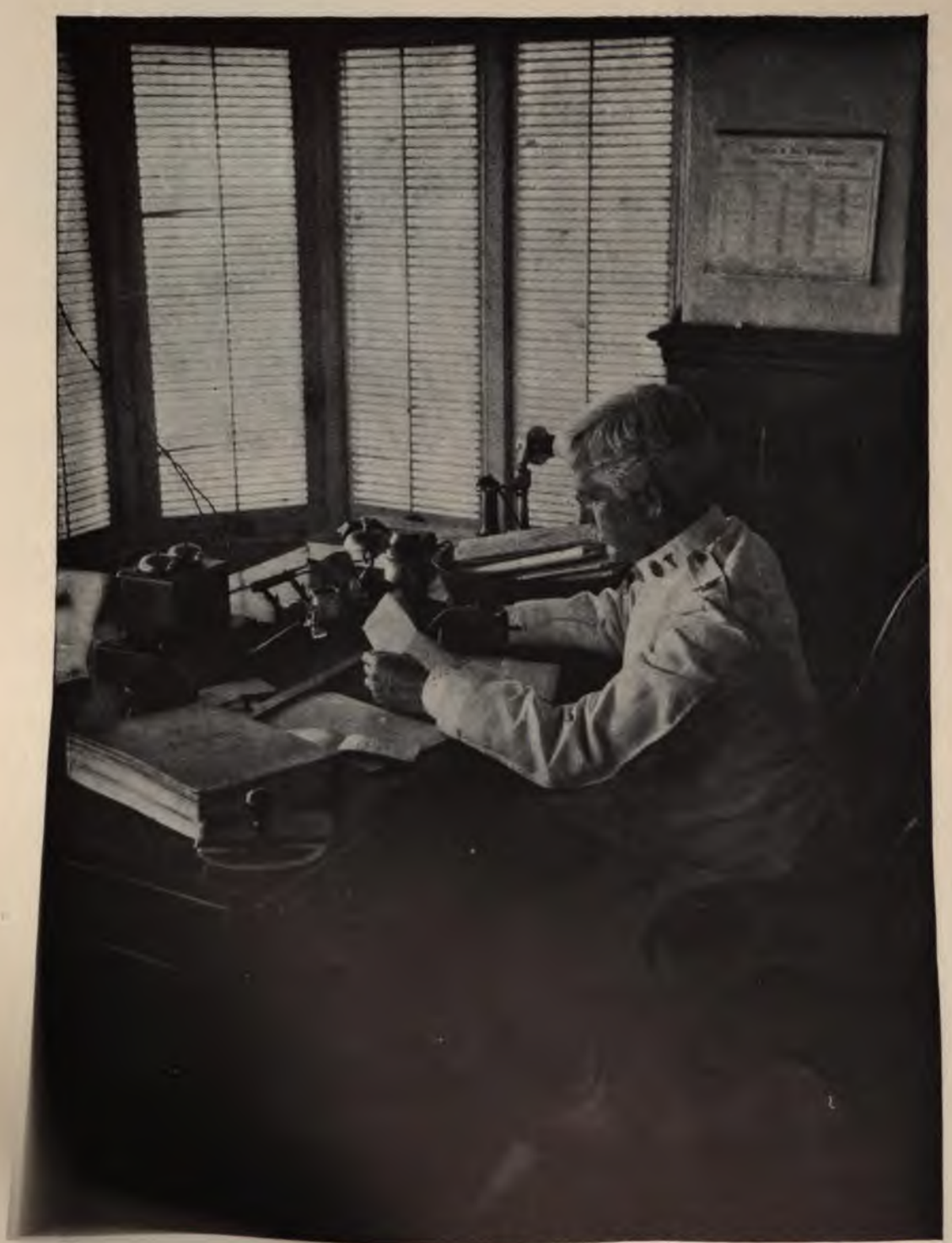


Photograph by Marceau

DR. HERMON C. BUMPUS

DIRECTOR OF THE AMERICAN MUSEUM OF NATURAL HISTORY, N. Y. WHO IS USING IT AS A GREAT EDUCATIONAL INSTRUMENT TO REACH THE MASSES OF THE PEOPLE

(See "New Work in Education," page 10457)



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COL. WILLIAM CRAWFORD GORGAS

[illegible] OFFICER ON THE CANAL ZONE AND A MEMBER OF THE ISTHMIAN CANAL [illegible] OF HIS NOTABLE MEDICAL ACHIEVEMENTS AT HAVANA AND AT [illegible] ELECTED PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION

MORAL AND BUSINESS GAINS

THE *Wall Street Journal* a little while ago made an admirable catalogue of the "gains of the last six years in the processes of trade and the administration of business," the chief of which are:

A most remarkable extension of publicity in the departments of transportation and industry.

The abolition of the railroad pass.

The doing away with most of the evil of rebating and secret discriminations.

The exposure of corrupt alliances between designing corporations and political bribe takers and blackmailers.

A notable advance in the direction of reform of the evil of campaign contributions.

Equality of opportunity has been widened and strengthened by legislation intended to prevent unfair competition.

The danger of a too powerful financial concentration has been met by creating an adequate sovereign in the Federal Government for the great interstate corporations.

A notable advance has been made in the standards of trusteeship.

The administration of the great insurance companies has been reformed.

For the first time in the history of the New York money-market, a comprehensive weekly statement of banking conditions has been established, giving to New York a preëminence in this respect over every other international market, and thus laying the foundations for the building here of the world's biggest money reservoir.

A wonderful extension of temperance, so that a large section of the country is now under laws prohibiting or strictly limiting the sale of liquor.

The South has undergone what amounts to an industrial birth with enormous possibilities in prospect.

There has been a stupendous electrical expansion.

The steel car is replacing the old wooden car and gradually the steel or cement tie is taking the place of the wooden tie.

A powerful movement for the improvement of the national waterways and the prevention of the wastes of the natural resources.

In agriculture there has been a marked advance in the selection of seeds, thus making for a greater production, while irrigation is steadily adding thousands of acres to the productive lands of the country.

Wireless telegraphy has been made a commercial fact, thus adding to the facilities for communication.

Laws have been enacted to prevent adulterations of drugs and foods, thus promoting the health of the people.

The value of combination as a method of preventing the waste of competition has become more generally recognized at the same time that the courts, legislatures, and executives have enforced measures for the prevention of oppressive monopoly.

This list is a fair and convenient summary of most of our definite steps forward, which prepare us not only for a renewal of prosperity but for a wiser use of it. These things all make for "good business." They make also for good character. To this list may be added:

The very much more scientific and, therefore, more effective management of philanthropy.

The rapid change in education and its rapid growth, whereby the practical needs of the young are more directly provided for — the better training of the workers of society.

The rebound in public sentiment from mob judgments and from "muck-rake" methods of reform.

The solving of the problem of aërial travel — in its first stages at least. Even if the commercial stage of flying machines has not yet been reached, their present advancement is a strong influence for peace.

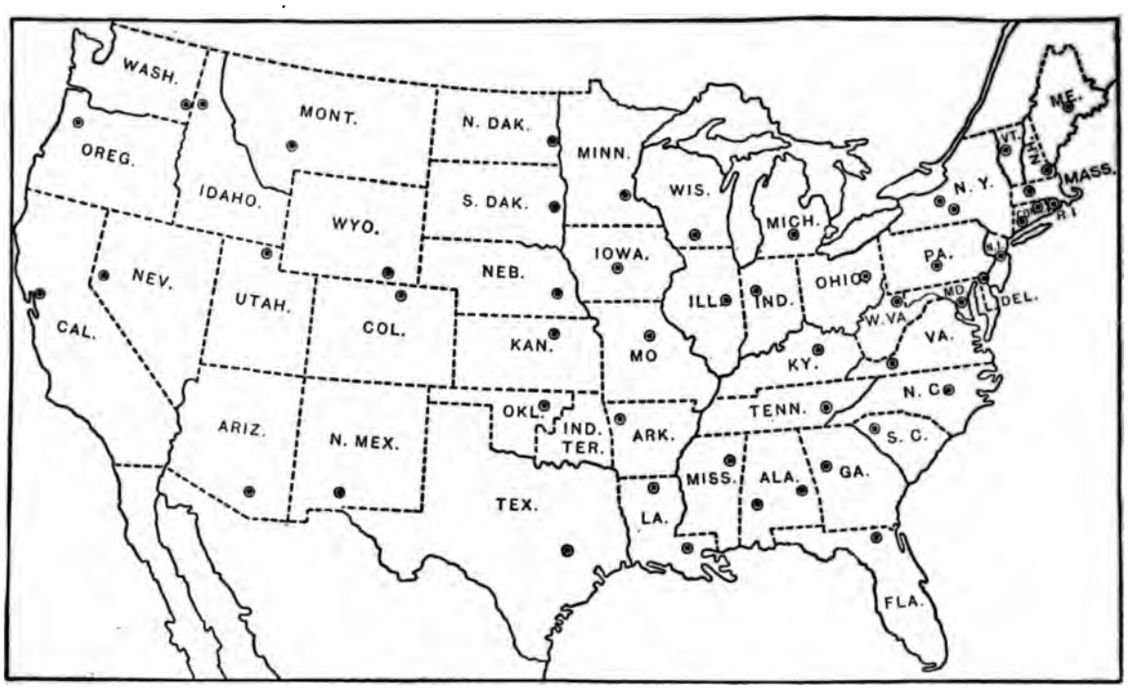
The vastly increased importance of the United States among the Powers and especially the practical cessation, largely through our influence, of revolutions in Central and South America, and the coming of stable government there.

The very great strength of the peace sentiment of the world and the growing hold of international arbitration on all civilized governments.

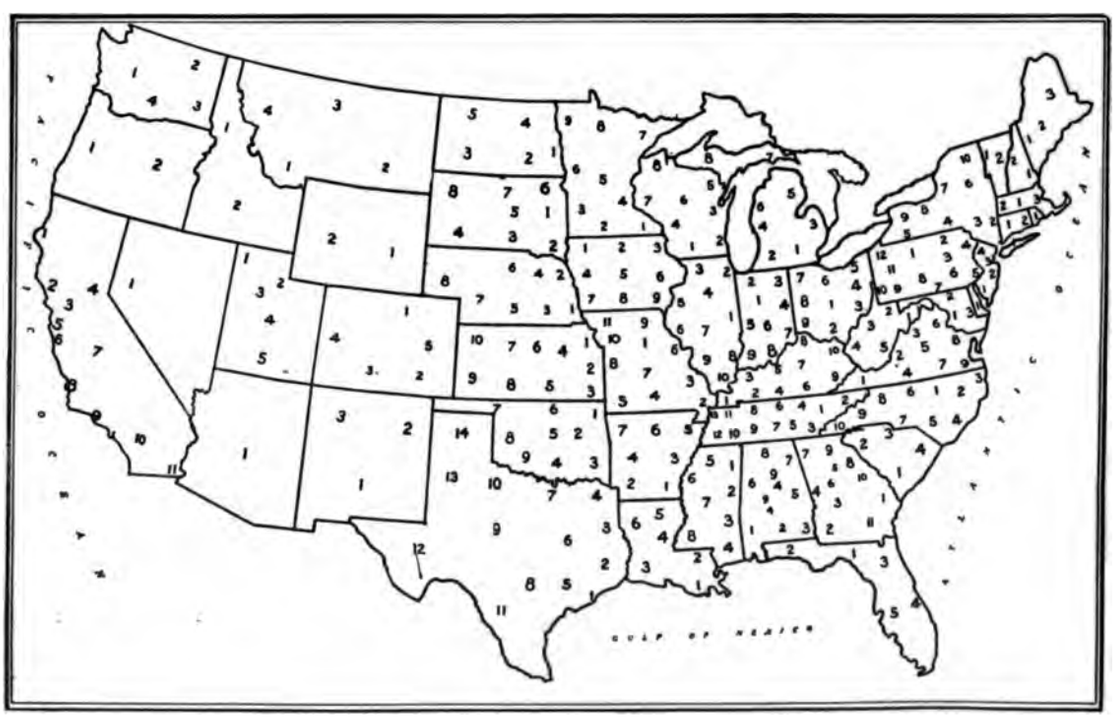
The list might be further extended, but these great changes are enough to make any man cheerful who looks out on the world with a balanced judgment.

A NATIONAL PLAN FOR PRACTICAL TRAINING

A STRONG, unsuccessful effort was made during the last Congress to induce the Federal Government to aid popular industrial, especially agricultural, education; and it is an effort that at some early time is likely,



STATE COLLEGES OF AGRICULTURE AND MECHANICS WITH STATE AGRICULTURAL EXPERIMENT STATIONS



THE NUMBER OF DISTRICTS TO HAVE AGRICULTURAL HIGH SCHOOLS AND BRANCH EXPERIMENT STATIONS AS PROPOSED BY THE DAVIS BILL

in some form, to succeed. As the subject now stands it is best presented in the bill of Representative Davis of Minnesota.

The Davis bill would appropriate annually to every state ten cents per capita for high-school industrial education conditioned on the coöperation of the state or locality concerned. The community would contribute the lands, the buildings, and the current expenses. In other words, the Federal funds would be devoted exclusively to industrial training and home economics; and this training would be done in high schools, which would be chiefly agricultural. An amount equal to one-fourth of the sum received by each high school would be appropriated for a branch agricultural experiment station, with the proviso that the state should furnish a like sum. No agricultural high-school district can comprise less than ten counties. It seems to have been proved that ten-county districts afford the best unit of utility.

An important part of the plan is to dovetail school life into active home life. Six months would be devoted alternately to school and to the work of the farm. During the period spent out of school, the work would be made educational by the coöperation of teachers and parents. In the Southern States, separate districts for colored industrial high schools would be laid out in coöperation with the primary colored schools, which would help to train the race to general industrial habits and efficiency.

Mr. Davis has calculated that 55 millions of our population will soon be directly interested in agricultural, mechanical, and domestic education. If this training should add 1 per cent. to the economic efficiency of these workers, the investment would yield more than two hundredfold a year.

The bill has been endorsed by boards of trade and kindred organizations, representing every section of the country. President Roosevelt commended it last October, in a speech at Keokuk, when he called attention to this gap in our school system and advocated Federal coöperation.

It will be interesting to see how the plan would work out applied to one of the great agricultural states, say Iowa. The apex of the system in Iowa would be the State Agricultural College at Ames. Immediately below this would come ten agricultural high schools — one for every ten counties — these in turn fitting in with the consolidated rural public schools, of which there are nearly two thousand. In all the consolidated rural schools of Iowa there would be 220,000 primary students and 40,000 secondary students; in the ten agricultural high schools 4,000, and in the agricultural college 400. Besides agriculture, the boys would be taught wood working and rural engineering, and the girls sewing and cooking, in the lower grades. In the high school, boys would be trained in all the activities of farm life, and girls in the household arts. Then, for the boys who wish to become experts, four years at the Agricultural College would round out their education with literary and industrial training.

The two accompanying maps, prepared by Mr. Hays, Assistant Secretary of Agriculture, show the number and location of existing state colleges of agriculture and mechanics and of state experiment stations, and, in contrast, the number of districts which, under the Davis plan, would each have a combined agricultural high school and branch experiment station.

Mr. Davis's bill proposes no new principle in Federal aid to education. It merely extends by ten cents per capita the annual appropriation already made for agricultural colleges and experiment stations, for which the Government now gives $2,000,000 a year. The friends of the measure who have studied it most thoroughly think that it would enormously increase the efficiency of the work now done and prevent the practical waste of much Federal and state money, which is now caused by a lack of a perfectly coördinated system. There is a big gap at the very place where we can least afford to have a gap — the place where it touches the mass of country boys and girls.

THE PRACTICAL SPIRIT OF TRAINING IN GEORGIA

THE very practical turn in educational work is indicated by the industrial feature of public-school training at Columbus, Ga. This is one of the first, if not the very first, city to introduce practical industry in its public-school system. The spirit of the work is indicated by the Superintendent, Mr. Carlton B. Gibson, who writes to THE WORLD'S WORK:

"Traditionalism is a dead weight to education. The greatest need is that the people — the

masses — break away from tradition and demand that the business of education be conducted upon modern business principles.

"The next greatest need is that the people show a reasonable willingness to pay adequately for the work of education. Satisfactory results will then come. Individuals, even in this free democracy of ours, may not always realize their demands with money, but the people always get what they demand and are willing to pay for.

"Modern business principles in the business of education require elimination of waste, the use of the best machinery, skill in the workers, and results in efficient social service.

"There is waste — prodigal waste; waste in courses of study, waste in short daily hours, waste in numerous holidays, waste in short sessions and long vacations, waste in idle school buildings, waste in unused equipment, waste in lost opportunities in the best age of man.

"Schools need buildings, not necessarily of orthodox architecture but, in size, ventilation, heat and light, adequate to the needs of modern life. They need equipment in more than desks and blackboards. They need those appliances that will aid in the direct preparation for the activities of life.

"The schools need skill in the workers — more skill than is ordinarily developed in the normal school; skill that comes not alone from scholarship and pedagogy; skill that comes from intimate acquaintance with life conditions.

"The schools will then contribute to society larger numbers of graduates from the elementary and secondary schools, graduates not only of passive good citizenship, but graduates of constructive and creative social efficiency."

A HEALTH DAY IN THE PUBLIC SCHOOLS

OF the same practical character is the suggestion made by Professor Willis H. Bocock, Professor of Greek in the University of Georgia, that a Health Day be a regular part of the work of the public shcools. He writes in explanation:

"(1) The University has proposed to the State School Commissioner and urges upon the school authorities of the whole state the setting apart of one day of each school year in every public school of the state to be celebrated as 'Health Day,' to be devoted to the instruction of children, and indirectly of their parents, of school boards, and teachers in the elemental principles of personal, domestic, and municipal sanitation. The time will come when all school children will be regularly inspected by trained medical men who will notify parents of physical defects, and all pupils will receive regular instruction in hygiene and the causes and prevention of disease.

"(2) At the meeting of the Board of Trustees in June, Chancellor Barrow proposed the establishment of a department of sanitation, first, to serve as the centre of a university-extension movement in coöperation with state and city boards of health and county authorities, for the dissemination of a knowledge of personal and public hygiene; secondly, to furnish instruction in such matters to the general body of students of the University; thirdly, professionally to prepare expert sanitary engineers and inspectors. It is planned to coöperate with the city of Athens, on the one hand, and make it the model city of the state, and, on the other hand, to furnish students of municipal sanitation the best laboratory equipment and practical demonstrations. The erection of a model abattoir and cooling establishment, the inspection of cattle before and after slaughtering, the inspection of plumbing, of sewerage and garbage, of water-supply, of factories, of sweat-shops, and of meat, fruit, and vegetable markets, are included in the plans. The success of these plans of coöperation will be chiefly due to Colonel Charles M. Snelling, one of the ablest members both of the city council of Athens and of the University faculty."

TEACHERS TO BUILD FARMERS' HOMES

AND quite as practical is another plan, which also comes from Georgia, from the Department of Manual Arts of the State Normal School at Athens, that the students there in training to become teachers should make plans and build model houses as better homes for country people — and to educate themselves. The plan is thus explained in outline by Mr. Fred J. Orr:

"Rural homes in this country can be improved. The ordinary plan of a house for a family demanding four to six rooms, consists of a hall in the middle, two rooms on each side, an 'L' in the rear, accommodating dining-room and kitchen, a back porch and a front porch, and that's all there is to it. It is probably based on a log cabin prototype, originated in the days of sand floors and mud chimneys, when workmen and tools, as well as money, were scarce.

"With the same outlay of money, there is no reason why there should not be greater convenience, less daily labor for the housewife who does her own work, and a more beautiful effect, in the ordinary country home. The information should reach the country man in active form, rather than on a printed page. Many helpful articles are written with illustrations these days, looking to the cultivation of a better judgment, and a more discriminating taste. But the person we are talking about doesn't see them. It must be a matter of experience rather than theory. He is a practical

man. Then how shall it be provided? The country school seems to be a practical agency. School teachers are asked how to do things in the community where they work. They are supposed to know. They should know. Moreover, the country school teacher, with practical working information on tap, is a double-barreled firing agency. He is *teaching* the children and *reaching* their parents. In our country the latter is as important as the former.

"Granted then that the country school offers the opportunity — the next step is of necessity the practical preparation of the teacher. And that is the bearing of this argument — to answer the question: How shall a prospective country school teacher in Georgia be best fitted to do the all-round work he will be called upon to do in any rural community of the state.

"One way follows: It is proposed to offer at the Georgia State Normal School a practical course in home-building. Conditions and needs in country districts will be studied; a house plan to accommodate a small family of moderate circumstances will be drawn by individual students, and the best features of all the plans submitted will be combined into a working drawing. The working plans completed, it is desired to construct the house by student labor. It is believed that this can be done — with the exception of small parts of it — and, by means of the experience, give students a good working acquaintance with carpentry tools, and a pretty thorough course in manual training.

"The whole completed, it is believed, will serve as a permanent object lesson — how to plan a home in the country economically, yet beautiful and thoroughly serviceable, and also give students the kind of efficiency mentioned above which they can apply practically in the field where they may work."

If so many definite practical suggestions come from Georgia, the same spirit will be found in many other states. The strong current sets toward the training for efficiency of the common man, and toward the training of adults as well as children.

COÖRDINATING WORKSHOP AND SCHOOL

THE fundamental principles of business have changed radically within the last twenty years. The fundamental principles of education are the same as when organized instruction first began. We have to-day in our engineering colleges a remarkable condition, which withdraws men from all contact with commercial production in order to prepare them for commercial production. To be sure, the engineering colleges established shops where students were taught the use of tools; but it has been clearly demonstrated, at least to the employers of college graduates, that professional educators cannot, and do not, operate their shops on a commercial basis, and the training which their students receive in such practice shops is, to say the least, advanced kindergarten work.

To remedy this evil, the University of Cincinnati began what is called the "Coöperative Course in Engineering." It arranged with the manufacturers of Cincinnati to place its students in the shops at periods alternating with their university periods. To avoid the inconvenience to the shops of intermittent work, the students are divided into two rotating classes. The plan met with the favor of the manufacturers of Cincinnati, with the result that two years ago the course was begun.

The students are paid for their work in the shops on a scale of wages which begins at ten cents per hour, and is increased at the rate of one cent per hour every six months. They work full time during the summer, except for about two weeks' vacation granted them by the shops.

The course has been arranged to cover a period of six years, and during this time the students will receive just as much instruction as students in engineering colleges do in a four years' course. During these six years they will serve a period of four years in the shops, since they work one-half time during the eight months of the college year and full time during the summer vacations.

Many interesting lessons have been learned by the University and the shops by the operation of this course even for this short time of two years, and one of the most striking is that the great majority of failures in the shops have been by city-bred boys. The country-bred boys with but few exceptions have stood the test, both at the University and at the shop.

The fundamental principle underlying this course is very simple. It is based upon the rational assumption that the proper way and the only way for a young man to learn the practical side of his profession, together with business details, and an intimate knowledge of the labor problem, is by working as a regular employee in a commercial shop under commercial conditions; and further that the only place where he can learn properly the scientific and the cultural subjects is at a school

under trained teachers. This further implies that the school work and the practical work should, as far as possible, go hand in hand, so that the young man may step from school to business just as readily as he does from one promotion to another in his business life.

We believe that this principle, giving to the school its proper functions and to the business world its particular phase of the work, if properly appreciated and acted upon, will solve many of the vexing questions of industrial education, and forestall many attempts along erroneous lines, which must inevitably lead to disappointing results.

THE ORGANIZATION OF RURAL LIFE

MOST of the work and plans for the improvement of social conditions that attract the public attention are plans for the building up of city life. For in cities social conditions are, of course, at their worst as well as at their best. Thus the country has been neglected. The benefits of organization, of coöporation, of quick travel, of swift communication, all the machinery to prevent a waste of time and of effort, have been applied to city life; and, of course, they cannot so easily be applied to rural life.

But it is rural life that not only most needs the help of modern organization and of coöperation and of all the other machinery for making work more effective and life richer; but country life will the better repay the effort. The country is yet the rearing place of the vigorous, whatever the city may become hereafter. Rural life is still the normal life of Americans. The country not only maintains more of us than the cities, but in the long run it maintains us better. "Better" does not mean more richly or more luxuriously. Nor does it even mean more efficiently. But it does mean that the country yet produces a larger proportion of normal men and women.

But rural life, too, has its dark side, its stagnant side, its dull and deadening side; and it needs the help of all the appliances of civilization that build up, that save time and effort, and that make for better organization. This, in fact, is our greatest social problem; for as a nation we shall never be continuously better than our rural population. But the task is so large that most efforts to take it in hand end in vagueness. What is first needed is a careful inquiry to find out what has been done in this locality and in that, and by this institution or organization and by that; and such an inquiry might result in making many comprehensive plans and in coördinating the forces that are already at work. Such an inquiry would take in also what has been done in other countries, such as Denmark and Ireland.

There is no large field of social and economic inquiry that is likely to yield better results than this; and the country and the whole world will await with interest the report on our rural life and its betterment that will be made by the commission which the President has appointed to study it. The appointment of such a commission is another evidence of Mr. Roosevelt's broad knowledge and wide sympathy with his fellows.

MR. ROOSEVELT AND MR. TAFT

NO CANDIDATE even for the Presidency could be more frank and specific in making his thought and purpose clear about all important subjects than Mr. Taft has been; and the people have already become aware that the dominant trait of the man is his candor. He dodges no question. He does not hesitate in his answers. He evades nothing. You may or may not agree with him, but you will never misunderstand him; and you will know precisely where to find him to-morrow and the next day and the next year on any important subject.

So completely has Mr. Roosevelt's strong personality impressed itself on the Presidential office that men everywhere, even unconsciously, ask what are the chief differences between Mr. Roosevelt and Mr. Taft. How will the great office seem with another personality in the White House? Such a question is not hard to answer — certainly not hard in general terms.

The chief differences between the two men are a difference of temperament and a difference of training. Their aims are the same. Mr. Roosevelt is emphatic. He says and does things — almost everything — with a bang. His calm mood is the mood of emphasis in other men. His energy is so great that his low notes are as high as the high notes of others. This excess of vitality has, more than any other quality, brought him both his great popularity and most of the unjust misjudgments that have been made of him. When he carries a little cane it seems a big stick to the timid and slow; and most men

are timid or slow. Mr. Roosevelt's mind is as quick as his body. He sees your point long before you get to it. Therefore if you are slow you think that he is impatient. Many a deed that another man would postpone till to-morrow he does at once; for he is active all his waking hours. Therefore many slow men have often thought him rash when he was merely energetic.

Mr. Taft is of the same temperament. Except Mr. Roosevelt, it would be hard to find a more active man than he is. His mind, too, is quick — very quick. He, too, is emphatic on occasion, but not so loudly emphatic. His energetic temperament has suffered a certain judicial toning down by reason of his studies, of his experience, and of his reflection. He is a trained lawyer and a trained judge. Formal procedure, a certain deliberateness, an instinctive reference to precedents, a disposition to hear the other side, a patient mood with the slow processes of formal proof — these qualities have become part of the man because of his experience. Quick in mind, quick in temper, quick in decision, and energetic in action — still he is deliberate.

These differences are important, although they are not fundamental. Mr. Taft is not likely ever to become the popular hero of the great mass of the young (of all ages) and of the adventurous, as Mr. Roosevelt has become. But he will be regarded as a great deal "safer" man by the timid and by the conservative. He would be regarded as safer even if he should do the precise things that Mr. Roosevelt has been thought "dangerous" for doing. Mr. Taft is not less courageous, but he is more modest. He will, therefore, be a President with the same general aims and with the same strong qualities that Mr. Roosevelt has had — even a "strenuous" President, certainly an energetic one. But the general judgment of him will be that he is a "safer" man. Still, evil-doers whose crimes come within the reach of the Presidency will hardly regard him so.

MR. ROOSEVELT ON STATE RIGHTS

DURING the closing session of the Governors' Conference at the White House, President Roosevelt made an impromptu explanation of his policies—the large policies that have brought him great popularity among the masses and bitter hatred by a minority — that was vociferously applauded by the audience, Republicans and Democrats alike. A distinguished man of science in the audience, who heard it rather as a scientific than political utterance, cried out, "Why, the man 's on fire." It was an eloquent explanation provoked by Mr. Bryan's use of the phrase "the twilight zone" between the national and the state governments. The President's whole speech ought to be read for a fair understanding of his Administration. He has made no other expression of his purposes that is so striking. He said:

"Just a word on what has been called the 'twilight land' between the powers of the Federal and state governments. My primary aim in the legislation that I have advocated for the regulation of the great corporations has been to provide some effective popular sovereign for each corporation. I do not wish to keep this 'twilight land' one of large and vague boundaries by judicial decision that in a given case the state cannot act, and then a few years later by other decisions that in practically similar cases the nation cannot act either. I am trying to find out where one or the other can act, so there shall always be some sovereign power that on behalf of the people can hold every big corporation, every big individual, to an accountability, so that its or his acts shall be beneficial to the people as a whole. In matters that relate only to the people within the state of course, the state is to be sovereign and it should have the power to act. If the matter is such that the state itself cannot act then I wish on behalf of all the states that the National Government should act.

"Take such a matter as charging a rent for water-power. My position is simply that where a privilege which may be of untold value in the future to the individual grantee is asked from the Federal Government, then the Federal Government should put into the grant a condition that it shall not be a grant in perpetuity. If there is necessity for the grant, then there must be power to attach conditions to the grant. Make it long enough so that the corporation shall have an ample material reward. The corporation deserves it. Give an ample reward to the captain of industry, but not an indeterminate and infinite reward. Put in a provision that will enable the next generation, that will enable our children at the end of a certain specified period, to say what in their judgment should then be done with that great natural power which is of use to the grantee only because the people as a whole allow him to use it.

"It is eminently right that he should be allowed to make ample profit from his development of it, but make him pay something for the privilege and make the grant for a fixed period, so that when

the conditions change, as in all probability they will change, our children, the nation of the future, shall have the right to determine the condition upon which that privilege shall be enjoyed. In these cases the state has not acted or cannot act. Therefore I hold the nation should act. Where the policy I advocate can be carried out best by the state let it be carried out by the state; where it can be carried out best by the nation let it be carried out by the nation. My concern is not with the academic side of the question. I deal with the matter practically, from the standpoint of true popular interest, and therefore my desire is to employ indifferently either the principle of state rights or the principle of national sovereignty, whichever in a given case will best conserve the needs of the people as a whole."

CHEAPER AND PURER ELECTIONS

THE bill to require publicity about the receipt and expenditure of campaign funds failed to pass Congress; for the action of the Republicans in the House, in tacking on to it a clause cutting down the South's membership in Congress, was insincere; and the bill was not expected to be passed by the Senate. And just how clean a campaign we may expect it is hard to say. But it seems safe to conclude that the old scandals will not be repeated in the same form or to the same degree.

The use of enormous sums and the "bleeding" of corporations came about, on a great scale, first under Mr. Hanna's management of the first McKinley campaign. The business interests of the country were so frightened by Mr. Bryan and his free-silver doctrine that they not only gave liberally but were easy victims of such resolute leadership as Mr. Hanna showed by his repeated and insistent demands for more and more. Of course, too, the special beneficiaries of the tariff were, as of old, "bled" for all the blood that could be drawn from them.

This enormously costly scale of conducting a campaign, once begun, was kept going, bringing four years ago the scandals that involved the big insurance companies and some practical railroad magnates; and, whatever the intentions of the beneficiaries of these huge funds may be, they mean ultimately the purchase and sale of elections and of privileges — or the expectation of such results even if they do not always come.

The moral sense of the people has been aroused — certainly to a degree; and, even in default of Congressional legislation, there is at least hope that the scandal will this year be less.

Mr. Bryan some time ago sent a challenge to Mr. Taft to pledge himself to make public the campaign fund that will be used in his behalf. Mr. Taft "went him one better" by making public a letter that he had previously written to Senator Burrows in favor of the passage of a pure-election law by Congress.

A still surer guarantee of moderation and care in this campaign are such facts as these: The corporations are wiser and more afraid; money does not come so easily in response either to appeal or to threat as it came several years ago; the public and the press are more watchful; the power of Congress to give special privileges has been greatly weakened, and we are on the eve of a pretense, and perhaps of an effort, to reform the tariff. We shall, therefore, most likely have the experience of electing a President this year somewhat more cheaply and cleanly than we have done the task for a good many quadrennials.

THE TWO GREAT CONGRESSIONAL DUTIES IN THE HANDS OF COMMISSIONS

THE Democrats by reason of a fundamental principle of their party are committed to radical tariff-reform; and the Republicans in Congress adopted resolutions promising a revision after the Presidential election. The Senate Finance Committee is commanded to make an investigation and so is the House Committee on Ways and Means. We shall therefore have in effect a Congressional Tariff Commission, which shall report to Congress next winter. How earnest the Republican promise of revision is, time (and the election) will determine. Mr. Taft also has committed himself to it. It is safe to say at least this much, that the discussion of the subject will not be much longer strangled.

And the appropriate committees of the two branches of Congress are empowered to make an investigation looking toward permanent currency and banking legislation. We, therefore, have two commissions (both made up of members of Congress) which have as subjects of inquiry the two fundamental economic and financial duties of the Government. How far such commissions further legislation and how far they merely stave it off is a question that must be answered in every case by itself. In both these cases the sincerity of the recent Congress is under a little suspicion. But these

commissions will be active and earnest in proportion as public sentiment makes itself felt at the polls and through commerical and financial bodies.

REAR-ADMIRAL EVANS

WHEN Rear-Admiral Robley D. Evans retires, on August 18th, the Service will lose one of the ablest commanders and most resourceful tacticians that it has ever had. It was by a narrow margin that he came into the Service at all, for had he possessed a less determined character he would doubtless have joined the Confederate cause and laid down his life in its defense as Samuel T. Evans, a younger brother, did. When the Civil War broke out, Robley Evans was a cadet at the Naval Academy, and the youngest man in his class. He had been appointed from Utah, although his family lived in Virginia. Without his knowledge, his mother sent his resignation to the Navy Department at Washington, and it was accepted. The resignation was forwarded to the commandant, who was greatly incensed. He confronted young Evans and, brandishing the resignation, upbraided the youth for resigning after having declared that he would stand by the Union. "I 've a good mind to send you to Fort Delaware for imprisonment," shouted the commandant. Evans asked permission to look at the resignation, and saw that it was in his mother's handwriting and signed by her, and he promptly reenlisted. He was out of the Service but one day.

Although but 15 years old when the war broke out, he served through it with distinction. At Fort Fisher he was severely wounded and he has suffered ever since as a result. He has not put his foot to the ground without pain for forty-four years. The incident of his refusal to leave the service of his country when a cadet, and the fight at Fort Fisher, are considered by the Admiral to be the two great turning points of his life. Admiral Evans fought also through the Spanish War and, as in the case of the Civil War, his gallant services were rewarded by promotion. It is not without good cause that he is called "Fighting Bob." And he has that lofty kind of moral courage which has enabled him not only to fight the enemies of his country, but to endure suffering when it took a strong man with an iron will not to succumb.

The Admiral has seen more active service than most of his comrades. He had eight years as a flag-officer — and that is something to point to with pride in a Navy where the officers grow gray before they have a chance to walk the bridge of a man-o'-war. For five years he commanded the United States fleet in the China seas, and after that he was commander of the Atlantic fleet for a longer period than any other man ever held command over it. Long before that, he was selected to command the *Indiana*, which was the first battleship put in commission by the Navy Department, and he was commanding officer of the *Iowa* in the Spanish War. He has had four separate flag commands; and it is one of the proudest things in his record that his conduct has always been considered so exemplary that there is not "the scratch of a pen" against him on the records of the Navy Department. Yet, with all this gallant service and good conduct, he retires with the same rank that he has held for eight years. His friends regret that Congress did not see fit to honor him by raising his rank to that of Vice-Admiral, as his distinguished record would, they think, warrant.

Probably no one so well as Admiral Evans himself knows what it meant to take the Atlantic battle fleet through the Straits of Magellan and up the South American coast to San Francisco. So serious a task was it that many European critics prophesied disaster. The burden of responsibility on him was heavy, and its effects can be seen yet in the lines of care indelibly imprinted on his face. But, when he speaks of the royal reception he met with in California, his eyes brighten and he forgets his sufferings and anxieties.

Rear-Admiral Evans is a man who enjoys the most unreserved affection of his fellow officers. The whole Navy admires the man, and holds him in the highest esteem. He is a strict disciplinarian, but he is a lover of fair play and his men know that injustice will not be tolerated. In the opinion of the Navy Department he is to-day without a peer in our Navy or in any other.

Coming across the continent after taking the fleet into San Francisco bay, he told the crowds that gathered around his car and demanded a word from him: "I have taken your fleet into San Francisco Bay; and it will be taken anywhere else that the President orders it to go." And the people cheered — cheered their fleet, their Admiral, and their President.

A CENTENNIAL MONUMENT TO LINCOLN

FEBRUARY 12, 1909, will be the one-hundredth anniversary of the birth of Lincoln. There will doubtless be many plans properly to celebrate the day. But the most appropriate and notable celebration would be a suitable beginning of a great memorial to him in Washington on the grounds of the Capitol. The committee of the House of Representatives which has charge of legislation for beautifying these grounds favorably reported during the late session a bill to appropriate a million dollars for such a monument. The idea is to erect some memorial as noteworthy as the Washington monument. Then the national capital would contain two worthy memorials to the two greatest Presidents.

It seems to be taken for granted that Congress will at its next session pass this bill; and surely the project will meet with the heartiest approbation of the people of every section of the country, if a worthy plan be worked out.

A LITTLE REASONING ABOUT OPPORTUNITIES

AMONG other striking passages in President Roosevelt's address to the Governors' Conference on the Conservation of Natural Resources was this:

"From the first beginnings of civilization, on the banks of the Nile and the Euphrates, the industrial progress of the world has gone on slowly, with occasional setbacks, but on the whole steadily, through tens of centuries to the present day. But of late the rapidity of the process has increased at such a rate that more space has been actually covered during the century and a quarter occupied by our national life than during the preceding six thousand years that take us back to the earliest monuments of Egypt, to the earliest cities of the Babylonian plain.

"When the founders of this nation met at Independence Hall, in Philadelphia, the conditions of commerce had not fundamentally changed from what they were when the Phœnician keels first furrowed the lonely waters of the Mediterranean. The differences were those of degree, not of kind, and they were not in all cases even those of degree.

"Mining was carried on fundamentally as it had been carried on by the Pharaohs in the countries adjacent to the Red Sea.

"The wares of the merchants of Boston, of Charleston, like the wares of the merchants of Ninevah and Sidon, if they went by water, were carried by boats propelled by sails or oars; if they went by land, were carried in wagons drawn by beasts of draft or in packs on the backs of beasts of burden. The ships that crossed the high seas were better than the ships that had once crossed the Ægean, but they were of the same type, after all — they were wooden ships propelled by sails; and on land the roads were not as good as the roads of the Roman Empire, while the service of the posts was probably inferior.

"In Washington's time anthracite coal was known only as a useless black stone; and the great fields of bituminous coal were undiscovered. As steam was unknown, the use of coal for power production was undreamed of. Water was practically the only source of power, save the labor of men and animals; and this power was used only in the most primitive fashion. But a few small iron deposits had been found in this country, and the use of iron by our countrymen was very small. Wood was practically the only fuel, and what lumber was sawed was consumed locally, while the forests were regarded chiefly as obstructions to settlement and cultivation.

"Such was the degree of progress to which civilized mankind had attained when the nation began its career."

This means such an increase in the activities of men as not only never before came in human history but could never before our time have even been dreamed of. It means an increase in the number of activities, in the kinds of activities, in the varieties of work done and to be done, and in the profits of work. A man with the normal ability and character has many possible chances for earning a living that his grandfather did not have. A man whose abilities and character lift him at all above the average has not only a larger number of chances but chances for greater influence and greater profit. Perhaps the mere drudge has no more chances nor very much more profitable chances than his grandfather had. But men of this grade — and God makes many of them in every generation — never had many chances since the world began, because they are slow to see chances when they meet them. They have always done the dull and least profitable work, and they always must do it.

There is nothing harder to make an accurate measure of than the difference in opportunities between two generations. Yet the conclusion does seem as certain as any conclusion about such a subject can be, that capable young men of character and training who are now just beginning their careers have more chances and better chances — each according to his ability — than any preceding generation had. Such a judgment as a mere rhetorical generali-

zation is worth nothing; but any well-balanced study of new pursuits, of new kinds of work and service and of old kinds as well, and of the new outlook in every direction which the applied sciences give in our use of nature and in our evolution of industrial society — all these point clearly to the same conclusion. The trained man and the man of normal ability is surer to win success than the corresponding man was in any earlier time.

THE WRIGHTS' SUCCESSFUL FLYING MACHINE

THE problem of making a successful flying machine has been solved. It was, in fact, solved several years ago by the Messrs. Wright, of Dayton, O., but their recent demonstrations have even more conclusively proved their triumph.

In the latter part of May, on the sand dunes of Kitty Hawk Point, North Carolina, they made a test that is a most notable event in contemporaneous history. The descriptions and photographs of it convinced the public of what those in the confidence of the Wright brothers had known for some time — that they have built a machine that is heavier than air, that will fly either with or against the wind, and that can be kept at all times within the perfect control of the operator.

Their first experiments were with gliding machines, in which they successfully breasted the high winds on the dunes off Hatteras. They learned to balance in the air on the wind currents as a bird does when it soars. Others had done this. For years gliding machines heavier than air, and some even carrying considerable weight, have been successfully kept up upon steady atmosphere currents.

The next step was to fit their machine with an engine. At this problem they have made experiments for several summers. Three years ago they had a machine weighing less than half a ton and driven by a twelve horse-power motor which successfully traveled twenty-four miles under perfect control and stopped then only because of a lack of gasolene. The machine which they had on the North Carolina coast this spring was in its essentials similar to the twelve horse-power machine of 1905. In both these the Wrights had succeeded in solving a problem which had baffled all others. They have so built their machine that by working certain levers they can slant the wings of the aëroplane, as a bird slants its wings, to meet changing air currents. They know how to balance their machine in the air as a bicycle rider balances his machine on land. This is the fundamental fact upon which their success rests.

The present machine, to meet the requirements of the United States War Department, must be able to carry two men, to remain in the air an hour, and in that time to make a controlled flight of forty miles. The machine has shown that it can fulfil all of these conditions and the inventors feel confident of succeeding in the trial at Fort Meyer, Va.

These two undemonstrative, quiet, bicycle dealers — that is what their business was — have without any great outlay of money and with the least possible publicity done for aërial navigation what Fulton did for navigation by steam. They are self-taught scientific men who have reached success by scientific methods. They are far more interested in flying than in notoriety. And they have shown patriotism as well as modesty; for they have agreed to supply the United States Army, for a few thousand dollars, with a machine, the exclusive right to which, it is said, might have been sold to another government for a great sum.

THE STORY TELLERS' LEAGUE

THE Story Tellers' League had its beginning during the summer of 1903 at the Summer School of the South at the State University, Knoxville, Tenn. Out of the more than 2,000 teachers there, a group frequently met on the lawn at twilight to tell stories. These meetings had a serious purpose, but they were free and informal. The teachers sat on the grass, and each one told a story as she might feel disposed. Superintendent B. C. Gregory wrote subsequently:

"The Summer School left many a pretty photograph on my memory but the sweetest is that of the Story Tellers' League. The fading twilight, the dreamy quiet of the hour, the overshadowing trees, the circle of faces, the repressed tone of voice of the story tellers appealed wonderfully to me.

"And the child, the being to whom the service was dedicated, was always in mind. When the darkness had fallen so that the form of the story teller was all but invisible, the effect was heightened. We always adjourned quietly as if we feared the gentle influences would vanish if we were noisy."

The attendance at these meetings grew from two dozen to two hundred and before the Summer School closed a formal organization had

been effected. The purpose of the league was to discover in the world's literature, in history, and in life the best stories for education and to tell them with love and sympathy for the children, and to bring together in story circles those who love to hear and tell a good story, the kindergartners, teachers, church workers, children's librarians, and those whose hearts are afire with this work that they might impart its spirit to others.

Dr. G. Stanley Hall, speaking of the movement soon after it was organized said:

"Teachers and parents are prone to forget that the education of the race in a very significant sense began with story telling. Before writing there was only oral tradition. We are assured that some of the Indian story tellers carry in their memory not less than one hundred thousand lines of poetry. Some of them are dull and uninteresting through the day, but when the camp-fires are lighted and they begin to weave the wondrous charm of 'once upon a time,' they take their hearers captive and lead them as with the magic flute of the Piper of Hamlin. Stories live from the tongue to the ear and not on the long circuit from the eye to the fingers as reading and writing do. Therefore they are more vital. Stories pre-form moral choices because, if they are good, desert is always rewarded. Moreover, a good story brings the mind of the hearer into more unity than almost anything else. A vast number of persons and incidents are woven together all subject to one dominant interest. In these days of correlation and coördination of educational material, the value of this can readily be appreciated. Most, if not all, of the best of the oldest literature that is classic, such as the Vedas, the work of Homer, the Nibelungenlied, the King Arthur cycle, lived and moved and had their being as stories and were thus slowly shaped into their present effective form. Indeed, I almost think that if I were Plato's wise tyrant and had to appoint teachers of the young, the first test, and if I could have but one, the only one, to which I would subject candidates would be whether or not they could tell a good story; for this alone would test their sympathy and power of adaptation. There is a great possibility of development here, and in the few who are devoting themselves to it, as are the Story Tellers' League, I not only wish but predict a very high degree of help and service."

Those who went out from the inspiration of those meetings were quick to seize upon its educational possibilities, and returning home organized their friends and pupils into local leagues for similar work and pleasure.

On visiting a Southern town the following winter, the Superintendent of the Schools declared that he had noticed a great improvement in the teaching of history and literature among his teachers, and he attributed it to a league that they had organized. During the winter they had made a study of Norse and Greek stories which they told around their firesides. Similar leagues sprang up in a number of towns in the South, and at Corinth, Miss., there was a junior league, composed of children of the 5th grade. One girl, who is now in the high school made her home the popular resort of the children of the neighborhood who came to hear her tell stories. She told the better class of stories too, in a spontaneous and creative way, as she would play games. The work has made her life a radiant one.

Now, there are dozens of such leagues, reaching from New York to Texas. The interest the children take in the work reveals one of the greatest educational possibilities, for as a child likes to build a house with clay, sand, or wood, and in doing so educates himself, so he likes to take a word here and a phrase there and with voice and gesture build an ideal world, peopling it with life as he sees it. When a child or an adult retells stories that they have heard or read, they show reflection, meditation, self-reliance, creation, growth. A story never really becomes your own until you tell it to someone else.

In Ohio eight leagues were reported last year, three of which are in summer schools. In Cincinnati there are three leagues which meet separately during the winter and in May have a joint meeting. Their membership is composed of kindergartens, professors, students, and teachers. A league was organized in New York last autumn and now there are four, one of which is making a special study of Bible stories with reference to work in the Sunday Schools. Memphis, Tenn., has a flourishing league which meets twice a month and has published a year-book which shows the kind of stories which have been told at their meetings: "Fairy stories, folk stories, legends, myths, hero stories, symbolic stories, Bible stories, and local stories."

Thirty-five leagues have now been organized.

The National League will again hold its annual meeting at Knoxville, Tenn., this summer, and local leagues will have meetings at Wooster and Oxford, Ohio, the University of Virginia, and possibly at other places.

ABOUT MOVING THE UNEMPLOYED

A SCHOOL superintendent in the Middle West writes:

"I was so much pleased with your recent article on 'The Unemployed' that I feel compelled to take a moment to say how sane I believe the article to be. It seems to me THE WORLD'S WORK ought to organize a society of philanthropists for the promotion of just such work; that is, to show people how to get out of the cities and on to the farms.

"I remember once that I was stranded in a Western city. I went to a lawyer and asked him if he knew any farmers who needed help. Within a very few days I got work at $12 a month on a farm. I worked eight months and saved $76. There are thousands upon thousands of farmers needing helpers and thousands of homes open to girls who would cheerfully do house work."

To "organize a society of philanthropists" would be as hard a task as to move the other class of the unemployed. Philanthrophy is, in one form or other, at work on this task, indirectly at least, all the time. But if it were made easy to send men from town to country, and to find jobs for them, it would be hard to prevent the army of the unemployed from growing larger in order to take advantage of such an agency.

For this reason the task is more likely to be done by an especial effort of such public servants as railroad companies and state governments and the like.

Definite information is first needed. If it were known at any given time where labor of a certain sort was most needed and where idle laborers were, it would not be difficult to bring the men and the work together, if the men really wanted the work. There are some channels of information of this kind, but they are necessarily limited in their area or in their scope.

The likelihood is that a better distribution of population will be made, in a large way, and be ultimately regulated by such general forces as the economic improvement of country life. When farmers provide homes for farm-laborers' families and when farming, by better methods, pays as well as work in cities, the drift of men will turn. It will be from town to country and not from country to town. The crowding of the unemployed in cities is an inevitable, incidental result of two facts — that labor in the country is paid less than in town and that the organization of town life has brought social advantages for the poorest man — even for the tramp. There are free seats in the park, bread-lines, hospitals, charities, companions. The solution lies along the line of the building up of country life. That done, the cities will still have their burdens of the incompetent and the diseased and the unwilling; but they will cease to have crowds of those who really want work and cannot find it.

THE COST OF LIVING AND OF BAD MANAGEMENT

SINCE the halt last year in our headlong prosperity, during which we were living at an ever-increasing cost, persons of every grade of fortune have given a new emphasis to the inquiry, "How can I live with almost every necessity of life constantly becoming dearer?" The question presses as perhaps it never pressed before, and it is felt in every section of the country.

Land values and rents increased enormously during the last ten years; labor increased in cost; personal service of every kind became higher and higher; many articles of food became dearer; building material went up; but, most of all, people of every grade of fortune and of society added to their list of necessities many things that they had previously regarded as luxuries. We struck a new pace in living.

And the pace was too fast. It outran the increase of income. But it brought new habits, new conveniences, new indulgences, which are hard to shake off. While prosperity seemed illimitable, we continued to discount the future and even to mortgage it. We borrowed money on our homes to buy automobiles, and did a hundred smaller things that were as foolish as this, proving again that we are the most extravagant and wasteful people, perhaps, on earth. For with our efficiency we have not learned thrift. Thousands of statistical tables have been made by all sorts of societies and organizations during the last six months which for the thousandth time bring this indictment against us.

"The conservation of our resources" is a phrase that calls to mind the national problem of saving soil and forest and stream and mine; but it could with quite as much point be applied to the income of individuals and of families; and we have as great need to make this smaller application as the larger one. For, as a people, we have not yet learned how to live — how to save waste, how to turn

coöperation to the making of economies in living. It is a subject of education in the art of good management. If the halt in our somewhat headlong rush turn a part of our energy from haste at acquiring to skill in conserving and using what we acquire, we shall gain in happiness and in character more than we have lost in cash values.

ABOUT DIME NOVELS AND OTHERS

THERE are many changes of literary fashions, but the dime novel endures. "Old Sleuth" and "Nick Carter" are as dead as Sitting Bull or the *New York Ledger*; but other writers are employed to use their names. So small a matter as death does not put an end to their "works," and these prolific writers thus have a continuity which, if it persist long enough, will become an immortality.

This is good news — that the dime-novel lives. Nobody but a literary cad objects to it; for its persistence justifies a diversion which all men once had who were not molly-coddles in their youth or are not literary creatures now. It affords the only possible way whereby a boy of our time can see a coach robbed or get into a fight with Indians or become familiar with such a hero as Dick Deadeye. It is the only way in which a lad may now snatch a beautiful maiden by her hair back from a yawning precipice or learn to shoot a rival by firing at the flash from his gun in the dark. They were brave days when *we* did such things; and any man is a wretched creature who would deny the youth of this time the sport that the youth of his time enjoyed.

Yet, immortal as the dime novel is and of a right ought to be, there are reasons to fear its temporary decline. "Old Sleuth" and "Nick Carter" are now — so we read — mere college people — instructors in English and even under-graduates, who dictate adventures by the mile for the publishers who own the names of these original great yarn-spinners. Stories thus ground out are bound to smell of typewriters and academic phrases. The free air of an utterly abandoned imagination cannot be in them; for the joy that the originals gave came from the irresponsibility of the writers. The boy of thirty or forty years ago believed these adventures only as we believe Utopian books or the sermons that we hear — as things that ought to be true but are not.

It was this margin of doubt that held and charmed us and that tempted us to go and see whether the stage had really been riddled with bullets. With the profoundest respect for collegiate writing, you are yet bound to doubt whether any academic person can do this trick of the plains and the mountains in the real red-blooded, old-time way.

And there is another danger to the old orthodox type of the dime novel. It has a modern variation which has all its literary weaknesses without its sturdy vitality. You pay $1.50 now, if you are foolish and fashionable enough, for a novel with a candy-box binding which is a mere soft yarn — a sort of effeminate dime-novel. It deals with sex instead of six shooters and with maudlin women instead of adventurous men of quick eyes and strong muscles. It is a product of an indoor, self-conscious sort of life, and not of the plains and the mountains and of men of mettle.

Our consuls report — and this is good news — that the original American dime novels have a considerable sale (in translation) in Barcelona and Madrid and in Central and South America. The Spaniard will whip us yet if he continue to take such nourishment when we leave it for the same kind of gallant degeneracies in literature upon which he once fed and fell.

THE SAGE FOUNDATION AND PLANS FOR UPLIFTING THE POOR

THERE is, perhaps, no more interesting work in the world than the experiments, the inquiries, and the study which the Sage Foundation is making to find the best ways to help the unfortunate classes; for much as this problem has been studied and as many of its tasks as skilful men have taken in hand and done piecemeal, the big problem is yet far from solution.

The formulated aims of the Foundation are very broad:

> "Its object is the improvement of social and living conditions in the United States. The means to that end will include research, publication, education, the establishment and maintenance of charitable and beneficial activities, agencies, and institutions, and the aid of any such activities, agencies, and institutions already established."

It is giving a strong impulse to many such good works as the struggle to eradicate tuberculosis, the providing of playgrounds for city children, the work of the Red Cross, and to an

investigation of the conditions of life in a great manufacturing centre; and for this purpose Pittsburgh was chosen, and the inquiry is in progress. But it may turn out that more valuable even than these activities will be the study that these wide inquiries provoke. It is a new fact to many thoughtful minds that wise plans to uplift mankind are harder to procure than money to carry them out.

Besides the Sage Foundation, Mrs. Sage's activities to many other useful causes are placing her among the wisest benefactors of our time.

THE LIFE OF A MONKEY AGAINST THE LIFE OF A MAN

IN SEVERAL states, New York and Massachusetts, for examples, an effort is made to induce every Legislature to pass an act prohibiting the vivisection of animals for medical research. Such prohibition has not yet been made and perhaps it never will be in any enlightened community; but large and energetic organizations of sentimental, emotional, or ill-informed persons make it the business of their lives to keep up the agitation.

It might be well, if it were possible, to put some restrictions on the practice of vivisection such as would prohibit its wanton use by persons who have no serious purpose — if there be such persons. But the use of living animals for experiments, with the trained and intelligent purpose of advancing the sum of medical knowledge, is fundamentally necessary for the conquest of some diseases and for the intelligent treatment of others. Let one single example suffice.

Dr. Simon Flexner, director of the Rockefeller Institute for Medical Research in New York, discovered a serum which injected into the spinal cavity cures cerebro-spinal meningitis, a disease that had hitherto shown one of the highest ratios of fatality: and even when it did not prove fatal it often left the victim a wreck for life. This treatment is now used all over the world and it has cured 75 per cent. of the cases in which it has been used. It is fair to say, therefore, that this dreadful malady is now added to the list of conquered diseases. Dr. Flexner in talking about his discovery of the serum which cures meningitis said this:

"That is the advantage of experiments upon animals. Once we have tried our remedies with satisfactory results upon animals there is very little risk to human beings, and of course in treating the latter we shall proceed with the utmost caution.

"Take my own serum for spinal meningitis for instance. Without monkeys we could never have discovered that. First we had to prove the monkey had really meningitis, and then we could go ahead with experiments for its cure. We injected the serum into its spine and found it did it good, at any rate that it did it no harm. So we could inject it into the spine of a human patient with confidence that we were not doing him any harm."

That is to say, if Dr. Flexner had been prevented from experimenting on living monkeys, 85 per cent. of the persons who fall ill of this disease would now die, as 85 formerly did, and most of the remaining 15 per cent. would be made wrecks for life, whereas now 75 per cent. of the cases that are treated with his serum make a complete recovery.

MR. ROCKEFELLER'S REMINISCENCES

MR. JOHN D. ROCKEFELLER has been the most reticent of all men, about whose life and opinions there is a legitimate world-wide curiosity; and by his reticence he has no doubt suffered much public misunderstanding.

It is an announcement much out of the common, therefore, that his articles under the title "Some Random Reminiscences of Men and Events" will appear in THE WORLD'S WORK, beginning in the number for October.

Mr. Rockefeller tells, in the frankest possible way, incidents of his early life, reminiscences of his business associates, explaining how they came into the Standard Oil Company with him, what his methods of conducting business were, with many anecdotes and personal experiences; he describes his recreations — landscape gardening and golf; he gives an interesting account of his experiences in mining and shipping iron ore; he explains his aims and methods in his philanthropic work, which show how he brings the same concentrated study to the problems of giving wisely that he brought to the building up of a great commercial organization.

These articles are a modest and frank and kindly revelation of a remarkable personality, about whom the public has less authentic information than it has, perhaps, about any other notable man now alive.

It is done in a manner so simple and offhand that the public, for the first time, has a chance to see his great activities from *his* point of view, and with his large aims in mind.

These recollections will run through the magazine during the fall and winter.

THE WORLD'S WORK aims to give its readers the literature of present activity. The great corporation is the most striking invention and tool of present activity. One of the best examples of the great corporation is the Standard Oil Company.

THE WORLD'S WORK, therefore, will publish forthwith a series of articles describing the Standard Oil Company, telling how it carries oil from a well (say) in Ohio to lamps (of its own manufacture) in inner China and to almost inaccessible parts of the world. Oil travels in its own pipe lines, to its own refineries, and to the seaboard, is carried in its own ships overseas (a great fleet of them), put into cans of its own make, distributed by its own men, in the smallest quantities to the humblest homes of people whose caste or religion had to be overcome in countries whose government also at first forbade the entry of such a foreign product — a story as romantic as the adventures of the earliest travelers; but it brings home to the United States millions of dollars.

The origin, the formation, the working methods, the management, the personnel, the vast united machinery of such an organization as this — these are as interesting as any romance, although they are the most concrete facts of modern business triumph.

Beginning next month (August), THE WORLD'S WORK will publish this story of organization and extension and achievement, written by Mr. C. M. Keys, the financial editor of the magazine. He collected first-hand, authentic information by months of investigation. The first article will be about the export trade of the company; for this (August) number will be a special Overseas Trade Number.

Its contents will sweep the whole wide subject of our foreign commerce — "How Our Farmers Feed the World," by Mr. W. M. Hays, Assistant Secretary of Agriculture; "The Freighters of the Sea," by Mr. Edgar Allen Forbes, of the staff of THE WORLD'S WORK; "A Story of Export Success," by Mr. E. J. Bliss, an exporter; "How Manufacturers Get New Markets," by themselves; "Capturing the World's Markets," by Mr. U. D. Eddy; and other such articles, illustrated with extraordinary photographs which help to tell the story.

THE GOVERNORS' CONFERENCE AND A NEW PATRIOTIC IMPULSE

THERE is surely no harder task in the world than to get the thought of a whole people effectively fixed on any important subject, and hardest of all the thought of the whole American people. It usually requires a war to do such a task, or some such great upheaval. A Presidential election calls the attention of the whole people for a brief time to two men, but one of them is soon forgotten; and many Presidential elections fail to emphasize any idea so strongly that all the people will hold to it or act on it for a long period.

By recalling the difficulty of arousing the people on any subject, you may get a proper measure of the significance of President Roosevelt's calling the Governors of the states and territories together at the White House to emphasize the necessity of saving our natural wealth by a wise use of it. At one stroke machinery was put in motion that will bring this subject home to the whole people, in a way and with an effectiveness that has no parallel in our recent history, in a time of peace.

It was the most notable company of men that has come together in our country in recent times. The official head of the nation, the Cabinet, the Supreme Court, certain members of Congress, the heads of the states, and, besides these, many of the most distinguished scientific men that we have and men of a sound grasp of public subjects who came as "advisers" to the governors — two or three of the most noteworthy citizens of every state — among them the presidents of many of our foremost universities and schools of science; and, besides these, representatives of all the most important national organizations of scientific [illegible]ercial bodies; and,

besides these again, several great captains of industry.

About the general proposition that this extraordinary meeting was called to emphasize there was no difference of opinion. And the wealth of facts that were presented put the subject in every mind in a new way and aroused every man to an ardent purpose. When one subject was put into every mind as the foremost subject of public action that this generation can have, and was so presented and emphasized as to win universal assent and to arouse a patriotic purpose, then all the machinery of publicity, of exhortation, and of public action that a democracy can have was put in action at one stroke.

Every public journal in America was set to discussing it. The governor of every state will make it a subject of all his subsequent messages to the legislature and a part of his political campaign material. His successor must do the same thing. Every such message and every such campaign — every general public utterance and campaign henceforth in every state in the Union — will keep every newspaper and every public speaker discussing it indefinitely.

Nor is this all, for the universities and scientific schools will bend their energies, even more than they have bent them hitherto, to teaching and emphasizing it; and the public schools of the whole country will take it up. More than this, every scientific and commercial body must henceforth have it as one subject of perpetual agitation.

As a method of emphasizing one topic in the public mind, therefore, this Conference on the Conservation of Natural Resources was the most effective device that was ever hit upon. It had no precedent. It was simply a stroke of genius.

It is not too much to say, then, that President Roosevelt and Mr. Gifford Pinchot have changed the attitude of the American people toward the earth that they live on and given a new direction to the national thought; for the President very gracefully and truly gave Mr. Pinchot credit for the plan.

It was an interesting spectacle. The White House, since the interior was remodeled, makes an impression of great dignity as one enters it. On the long wall of the room where the meetings were held were two great maps of the United States, especially prepared for this conference. One showed the national forests, the water-sheds, the irrigation projects, and the like, and the other the mineral deposits of the country. Between them, with decorations of flags on either side, in a frame of olive velvet, was an illuminated photograph on glass — now of a forest fire, now of a hillside showing erosion, and now of a forest scene of desolation, and now of a reforested area; for these pictures were changed at every session and sometimes while the meetings were going on. The three large chandeliers, the two mantelpieces with vases of red roses, the old-gold curtains at the windows were good decorations. A platform extended across half the length of the room, and the room was filled with small gilt chairs. On the first day, on the front rows or near them sat Governor Hughes, Governor Johnson, Governor Folk, Governor Glenn, and other state executives whom the newspapers have made familiar; Mr. James J. Hill, Mr. Carnegie, Mr. Bryan, President Remsen of Johns Hopkins University, Presidents Hadley, of Yale, Van Hise of Wisconsin, Angell of Michigan, Northrop of Minnesota, James of Northwestern, Alderman of Virginia, and scientific men of every department of applied science.

On the rostrum were the members of the Cabinet and the Justices of the Supreme Court and the venerable Edward Everett Hale.

Cheering began at the door, the whole company rose and the President walked to the rostrum. He asked Dr. Hale to offer a prayer. Then he at once delivered the opening address to the Conference, perhaps the best address in its earnestness and its restraint and its suggestiveness that Mr. Roosevelt has ever delivered. He held in his hand the slips on which it was printed, but he spoke straight at the audience, with his usual vigor but with great deliberation and with perfect distinctness. No man failed to catch a single syllable or intonation. It would be hard to conceive of a more nearly perfect deliverance or delivery; and there was not a proposition nor an emphasis that any man in the room dissented from; and yet it pointed to a more extended use of governmental power (not of the National Government only but of municipal and state governments also) than we have yet accustomed ourselves to. Every man felt that he was witnessing an historical event. The address struck the high note of this mood. When it was ended and the audience slowly

passed out, the President standing in the hall shaking hands with every man, the conference was already upon a level of thought and of emotion that can be accurately described as the mood of high and practical patriotism. As Mr. Pinchot himself wrote in the last number of this magazine, we now enter a third great patriotic national period. First we were patriotic because of the establishment of the free government; then because of the saving of the Union; and now because of the purpose to save by wise use the rich natural resources of the land.

The second day was made memorable by the extraordinary address of Mr. James J. Hill, wherein he showed especially the progressive deterioration — by a dimishing return — of our agricultural land, from New England to the Dakotas.

The scientific papers presented to the Conference, giving exact data about agriculture, streams, forests, coal, and all similar subjects, were the most practical and helpful literature of waste and of methods of conservation ever put together. They will become a classic description of our great resources as they now are.

The brief speeches by many of the governors were in the nature of an "experience meeting." They told of the work that the state governments are doing to save and to reclaim. And the resolutions adopted called on the Government, local and national, and on the people to preserve our national wealth.

Every man came away from the most noteworthy gathering that he ever attended with a new love of his country, a new attitude toward it, a new conscience about the land, the trees, and the streams; and we entered then on a new era in our national thought and in our attitude toward our land.

W. H. P.

FARM MORTGAGES AND PUBLIC-UTILITY BONDS

(The Regular Monthly Financial Article)

THE present seems to be a good time when a man can well afford to turn his mind from the chances of profit in the listed bonds. There has been a big advance in nearly all the better classes of securities. Last November, and again in the early winter, the readers of THE WORLD'S WORK were strongly advised that the time for profitable investment in good bonds had arrived, and was passing. To-day, it seems, it has almost passed. The bonds which at that time this magazine was inclined to recommend as a list of conservative securities for the average man have advanced in the market in some cases six or seven points and in others fifteen points. It is unreasonable to look for much higher prices in these bonds. It is also unreasonable to suppose that, in case the tide should turn again within the next two years or so, the bonds will not again be purchasable at prices lower than the prices of to-day.

To-day it is wise for the average investor to select an entirely different list of bonds and securities. The selection should be made with no idea of advance in principal. It should be made rather for stability of income. Marketability is not so necessary as it was when investments were sought with the idea of gaining advantage from the inevitable advance in the general market. Of course, no one should buy bonds or stocks that he knows he will never be able to sell again; but with securities of good earning-power one need not have an active, changing market.

First, it is well to outline the idea that should underlie the investment of funds by a man who believes that the listed market is high, but who does not want to tie up his funds in such a way that, should there be a good chance for profitable investment within the next two years, he will be debarred from participating in it. This class of investors will include that large group of men who bought in November or December of last year,

and have now sold their stocks or bonds at advances of 10 to 30 per cent. They desire something solid, yielding good revenue, but also salable at any time of crisis when bonds are again cheap.

For this class we should select notes and maturing bonds. The nicest care should be used in selection. The writer's choice among the notes would be the 5 per cent. issues of the big railroads maturing in 1910 and thereabouts. They cost about par, and yield from 4.60 per cent. to 5.50 per cent. if held until they mature. If a crisis should arise, it might cost a loss of 1 per cent. or 2 per cent. to sell them, but any man who wants to make a new investment to gain 10 per cent. or more should not mind that. Otherwise they are perfectly safe. I prefer the railroad notes to the industrial or street-railway notes, because the market is infinitely better, speaking generally. A fund that has been created by the sale of good bonds at a large profit should be put into the notes or short bonds of such railroads as the New Haven, the Pennsylvania, the New York Central, the Michigan Central, Atlantic Coast Line, Baltimore and Ohio, or other standard railroads.

These short notes do not appeal to the average investor. He wants stability, but not with an idea of selling out and re-investing. Very few men can carry on a bond-account in the scientific way indicated above. That takes some training. What, then, should the average investor buy during a period like the present, having an eye first to stability and revenue?

Undoubtedly, the very heart and centre of this market is the farm mortgage. There is nothing better under the sun than the well-chosen farm mortgage. I think that about one-third of the average estate in the country or the country town should consist of local farm mortgages, or such mortgages selected carefully from a list made by specialists in such mortgages. The farm mortgage is one of the primary investments. Real estate is another of them. The mortgage or bond secured on improved real estate is a third. The purchaser of real estate intends either to use it or to sell it again at a profit. If he wants to use it, it is an investment, and the use is the income he gets from it. If he wants to sell again, he is speculating, and he requires special training to be successful.

In the farm-mortgage and the real-estate bond there is no element of speculation. The bond is practically always quoted at par and interest except when it goes bad altogether. There is no trading backward and forward. The average farm mortgage does not change ownership five times in its lifetime. It is not usually bought and sold like a bond, but requires an "assignment" to make its transfer legal.

As to the excellence of this form of investment there is no difference of opinion. The only restriction on this form of funds is that it shall be well-chosen. There was a time, in 1893 and succeeding years, when the farm mortgage became an object of dread. The savings-banks of the East had bought Western farm mortgages lavishly, foolishly, and without discrimination. All sorts of land at all sorts of prices were pledged under mortgages to feed the demand. When the strain came, many of these poorly secured mortgages proved worthless. The savings-bank laws of the East thereafter usually limited the savings-banks to the purchase of mortgages on lands in their own state. It was a reaction from the extreme looseness of 1893, and, like most reactions from extremes, went too far in the other direction.

If one wants sound mortgages to-day, either East or West, one may find them. The amount of such mortgages outstanding is probably much smaller than it ever was before, because many millions of dollars of mortgages have been paid off in cash out of the bounteous crops of the past ten years. Yet the new lands produce, year by year, a fair crop of mortgages. They are now gathered together by banks and mortgage companies and retailed at large throughout the country. Most of these mortgage companies are sound, conservative, and well qualified by experience and study to handle this business.

Here one reaches the crux of this question about farm mortgages. It hinges on the selection of the mortgages. If one want local mortgages, it is better to buy them from the local bank, or a local lawyer, if he is trustworthy. Even better, one may well afford to know the man who makes the mortgage. If he is a drunken, lazy, shiftless farmer, slow of pay, borrowing money to help him out of holes into which he has got himself by misconduct or shiftlessness, don't buy his mortgage. You will probably have to hire a lawyer and pay his fees to get your annual

interest, and foreclose the mortgage and sell the farm to get your principal when due.

If, on the contrary, he is a good farmer, and gets good results from his farm, and has a reputation for prompt payment of his debts, consider his mortgage all right, provided it is not too big and he can show you where he intends to put the money. Be careful that the mortgage is a real mortgage on the farm, and not on movable chattels alone. I don't believe in chattel mortgages for the average investor. They are a constant source of worry and loss. Some parts of this continent are badly afflicted with them, but, fortunately, not many parts.

If there are no mortgages in your community, or if the income from them is too small, make your purchases through a responsible agent in some other centre. Banks and mortgage companies should establish their credentials before they expect you to buy mortgages from them. The length of time they have been in service of this sort, the percentage of loss to buyers of mortgages through them, the willingness with which they undertake to look after the collection of interest and principal, and their reputation for ability to sell an assignment of the mortgage for you if you should ever need the money are points worth investigating.

A good deal of judgment may be exercised in the buying of mortgages, outside the matter of the safety of the mortgage itself. If I were choosing a temporary investment for a year or so, the choice would be as likely as not to fall on a farm mortgage maturing in a year. If you tell your agent what you want, he can generally get it for you. If you like, you can get a one-year mortgage, with the option of renewing it at the end of the year if you please. Short-term mortgages are preferable to long ones, merely because the short term makes the mortgage to all intents a negotiable security, like a short-term note. You know it will be good in one year, and the local banker generally knows it too. If you find it necessary, the mortgage will be available for the raising of a loan at any time

The third big class of investment for the same purpose is the public-utility bond. It does not take the place of either the short note or the farm mortgage. It is rather a permanent investment, for revenue only. In an article published in THE WORLD'S WORK some time ago, the writer discussed this class of bonds at length, and the arguments contained in that article are merely recapitulated here.

Two important elements enter into the selection of public-utility bonds for investment. They are, first, the company; second, the banker who offers the bonds. Many critics put the banker first, and with some show of reason.

The company should be a going concern, not a prospect. Never be tempted by glowing prospects of some "New York–Chicago" or "New York–Philadelphia" or some "New York–Boston" trolley line. Ask your banker for facts, not promises. The facts must be substantial and abundant, or you are taking unwarrantable risks for small returns. If you want to gamble, you should not gamble for 7 per cent. a year.

Get all the facts about the franchises, the population served, the legal restrictions on rates, the earnings of the company through all the years it has operated. Above all, find out whether or not it piled up a lot of floating debt during the critical period from August, 1907, to April, 1908. This will serve as a fair test of its ability to do business through a crisis. Any well-managed public-utility company should be in a position to live on its own fat through so short a lean period as this.

If you are going into public-utility bonds to any extent, a little course of study will do you good. The history of the New York street-railway companies, the agitation for 80 cent gas in this city, the history of the Detroit United for 1907, the effect of municipal-ownership campaigns in Toledo and Cleveland, the result of an earthquake in San Francisco will give you a fair idea of the unfavorable episodes that sometimes happen in the life of a public utility. The relationship between the company and its clients is perhaps more important in public-utility companies than in steam railroads.

When you are satisfied that the company is good and solid, turn your attention to the banker. The reason he is more important in the public utility than in the railroad is that the bulk of the public-utility bonds is offered by bankers who make a specialty of such bonds. In most cases the banking-house is financing the company. It has studied the situation and risked its own money in the venture. If it is a house whose reputation for sound judgment is good, its opinion is worth having, If, on the contrary, it has merely "taken a chance"

in this financing, or has failed lamentably in previous ventures of the same sort, it is not worth while to back its judgment with your money.

Extreme care should be used in all these forms of investment. In fact, when the bond-market at large is high in prices, the buyer should be very careful, no matter what he does with his money. What looks like a bargain to him is quite likely to look like a gamble to a trained bond critic. What looks unreasonably dear to him may seem to the better-versed to be a very good investment at the price. One must always remember that there is no fixed standard of measurement for bonds or stocks. Their values are relative, and depend on a hundred factors. If you do not understand these factors, ask someone who does understand them, and who will tell you the truth as closely as he knows it. C. M. K.

THE ADVANTAGE AND THE DANGER OF ASSESSMENT LIFE INSURANCE

(The Regular Monthly Article on Insurance)

WITHIN the last month THE WORLD'S WORK has received a number of letters similar to the following:

"What is your opinion of fraternal life insurance societies as to soundness of principle? It seems to me the votes of assessment in the younger of these orders are too low to guarantee a continuance as they grow older."

In deciding what life insurance one should buy, the first and most obvious step is to examine the policy — or, in assessment societies, the certificate of membership — which the agent offers. Let us take, for example, the certificate of one of the oldest and most successful of these organizations. Omitting some of the details it reads as follows:

"This certificate is issued to *John Doe*, a member of the *Royal Arcanum* and upon condition that the said member complies in the future with the laws, rules, and regulations now governing the said Council and Fund or that may hereafter be enacted by the Supreme Council.....the Supreme Council of the *Royal Arcanum* hereby promises and binds itself to pay out of its Widows' and Orphans' Benefit Fund to *Harriet Doe* (wife of insured) a sum not exceeding One Thousand Dollars."

This means in plain English that the insured is to pay the society whatever assessments its Grand Council considers necessary and in return it will pay his beneficiary upon his death "a sum not exceeding one thousand dollars." The insured has agreed to pay any sum decided upon by the other party of the contract. No one, whatever his thirst for knowledge, would contract to buy an encyclopædia for a dollar down and as much as the publisher saw fit to charge every month thereafter. No man would agree to buy a house upon the instalment plan with the amount of the instalments to be fixed from time to time by the real estate company, even if he did hold a share in the company. And yet thousands of people sign these indefinite life insurance contracts without a qualm, in spite of the fact that the purpose for which insurance is bought ought to make it their most careful purchase. But few people, even those who buy large amounts of insurance take the same precaution with an insurance contract that they take with other contracts of half the importance.

The assessment policies are popular because the rates are, in the beginning, much cheaper for the same amount of insurance than the policies of the "old line," or legal reserve, insurance companies. In some of the assessment societies the cost per $1,000 of insurance for members twenty-five years of age is as low as $5, while in the old line companies a $1,000 ten-year term policy would cost about $10 a year, and the regular annual premium life policy nearer $20 a year. The low cost is the bait which attracts men to the assessment societies, and the indefinite obligation they assume on signing the contract is the risk they run.

The history of the Protective Life Association, of Rochester, N. Y., will give an idea

of the relative advantage of the bait and the danger of the risk.

The association began business in 1880, in which year it issued 36 certificates of membership for $2,000 each. The members were, in the main, young men and, although assessments were low, they were ample to meet the few death-claims that occurred, and even piled up a small reserve. But, as the members grew older and the deaths among them more frequent, it became necessary for the Association to raise more money to meet the death-claims. Six times between 1880 and 1908 the rates for new members have been raised. This, of course, tended to keep new members from joining, but the original members in their advancing years consistently stayed with the Association because there was little likelihood of their getting such cheap insurance elsewhere. At the beginning of this year the average age of the members was 55 years. They are dying so fast now that their death-claims not only take up all the income from assessments but eat into the invested assets of the association. These assets amounted to $99,659.88 on December 31, 1906; and to $67,364.55 on December 31, 1907. On May 19, 1908, the financial condition of the Association was as follows:

Total assets	$46,576.88
Total liabilities	38,564.90
Excess of assets over liabilities .	$8,011.98
Total income, 1907	$45,228.96
Total disbursements	71,868.71
Excess of disbursements over income	$26,639.75

Another similar year would leave the society with liabilities of about $18,000 more than its assets.

The Association did not make the assessments of its earlier members large enough to pay their death-claims when they fell due. But its managers seemed to think that they could find a way to escape the inevitable day of reckoning. They appear to have assumed that if enough young members could be induced to join each year, the death-claims of the older members could be met, by their payments. This plan would probably have worked, if young men could have been induced to join in constantly increasing numbers. But in this case, as in many others, a sufficient *number of young men* willing to help bear other people's burdens has not been available. The result has been, in the words of the examiner of the New York Insurance Department, that "the assets are practically wiped out, the premium-income does not equal current losses, and the high average age shows that the death-rate will be very high for the next few years. The affairs of the association are in a precarious condition at this time and there is no possibility of a continuation of its business in the future without an immediate increase in the assessment rate."

The bait of low assessments which lured the members into the association has been their undoing. It has put in jeopardy the safety of their insurance, and now the only way to save themselves is to raise their rate of payment in their old age when their earning-power is diminished and they can least afford it.

It is not impossible for similar circumstances to arise in the affairs of any of the assessment societies or fraternal insurance orders. It is true that there are many in the United States which are entirely solvent, which have large sums in invested assets, and which are doing a large and growing business. Yet the members of practically all of these societies are in danger — either immediate or remote — of facing a situation like that which now confronts the members of the Protective Life Association. They will either themselves have to pay very high assessments to meet an increasing death-rate, or induce enough new and young members to join whose payments instead of piling up a reserve for the time of their own deaths will be used to make up deficiencies in the payments of the older members. Or, failing these two ways of delaying the day of reckoning, the members will have to watch the association go into the hands of a receiver, leaving them all without insurance and many of them too old to buy any.

The very theory on which these assessment associations are founded leads to this predicament, although many of them by good management and various devices put off the evil day from time to time. The theory is that when a member dies all the others shall be assessed to pay his death-claim. When all the members are young, there are naturally few assessments. As they grow older and deaths become more frequent, the assessments increase likewise. If there were no new members as the older ones reached the sixties

and seventies the size of the assessments would be appalling. Carrying the theory to its extreme conclusion the last survivor of the society would have to pay the entire death-claim of his predecessor and then deposit enough to pay his own.

The societies, as we have seen, count on an ever increasing membership to prevent this dilemma, but their histories show that an ever increasing membership can not be had if the new members have to bear the burden of the death-claims of older ones. Eleven out of the twenty-six listed fraternal orders started before 1880 and still extant showed a loss of membership in 1906.

Another method of obviating increasing the assessments is the accumulation of a reserve to meet the death-claims, when they become frequent, but that would mean higher assessments to begin with and the societies as a rule have not been willing to adopt this plan.

Thousands of people have in the past profited by the cheap rates of the assessment associations and fraternal orders. Thousands will in the future. There are also thousands who have made money by the purchase of semi-speculative stocks. Yet these stocks cannot be recommended for conservative investment. Likewise the assessment plan may give a man more insurance for his money than any other kind, but its cheapness brings with it an added risk. It is a kind of speculative insurance. And, as the word insurance implies, absolute safety ought to be its most important element. There should be no speculation about it.

Therefore, in spite of the great success of many of the societies, and the great benefits they have conferred on their members in the past, THE WORLD'S WORK does not feel willing to advise its readers to purchase this kind of insurance except under unusual circumstances.

BOOKS ON PRESIDENTIAL CAMPAIGNS

THE uppermost subject in the public mind this month is probably the Presidential campaign. Following are a few of the most important books on this subject. Of course a much larger list could be made on so large a topic.

"The National Conventions and Platforms of All Parties," by Thomas Hudson Tucker (the Friedenwald Co., $1.50). A compilation of everything referring to Presidential campaigns of use or interest to public men, with a complete collection of the platforms adopted by each party at every national convention from 1789 to 1904.

"History of the Presidency," by Edward Stanwood (Houghton, $2.50). Contains incidental material on the origin and principles of political parties and their influence in Presidential campaigns from the first election to the free-silver campaign.

"Political Parties and Party Problems in the United States," by James Albert Woodburn (Putnam's, $2). A study of party spirit and the forces that underlie and operate our government. Part II. is devoted to American party machinery with studies of the national convention, its composition, its origin, and its present status, and a concluding chapter on the conduct of a campaign.

"The Republican National Convention of 1904," by William Gardner Osgoodby (The Illustrated Publishing Co.) Presents a near view of the campaign and inauguration, accentuating the humorous side. Profusely illustrated, including reproductions of famous political cartoons.

"Our Political Drama: Conventions, Campaigns and Candidates," by Joseph Bucklin Bishop (Brentano's, $2). Anecdotal articles published in the *Century Magazine*.

Of the foreign writers on our political machinery the best known is James Bryce, author of "The American Commonwealth" (Macmillan, $4), chapters LXIX–LXXIII. of which contain a detailed examination of the national convention and its work. The typical Presidential campaign is graphically pictured by the most impartial and shrewd observer of American political life, who has, as a foreigner, the advantage of perspective denied to our native writers.

Another interesting foreign book on our political machinery is "Democracy and the Organization of Political Parties" by M.

Ostrogorski, translated by Frederick Clarke (Macmillan, $6). Volume II. deals exclusively with the United States, and presents the results of a most exhaustive inquiry into the extra-constitutional activities of American Government. Part V. of this volume discusses at great length conventions and election campaigns, even going so far as to explain political slang and campaign catchwords. The whole book is colored by the author's open hostility to the party system of government.

THE MOST TROUBLESOME ITEM IN BUSINESS

(The Regular Monthly Article on Business Helps)

A BUSINESS man needed a certain labor-saving machine for office use. After he had needed it a year he spent the odd moments of two months looking at competing machines, listening to salesmen, and reading descriptions; and at last he made his choice and bought one.

Several weeks later the manufacturer of this machine became involved in a lawsuit, during which it was brought out that the machine for which the purchaser paid $180 cost the makers $58.46, including raw materials and labor.

This man is in a jobbing trade wherein transactions turn on 10 per cent. margins, and only the most careful figuring of carload shipments makes profit possible at all. It seemed to him that the manufacturing house had cleared at least 100 per cent.

But the truth is, his purchase involved no unreasonable profit, considering the value of patent rights. What made the great gap between factory figures and retail price was the item of selling-expense.

To regulate selling-expense is to-day one of the most difficult problems in hundreds of industries. It is in most kinds of merchandise, except absolute staples, the largest individual charge in conducting a business. It is out of all proportion to manufacturing cost or profits.

If you wonder why Ohio machinery can often be purchased more cheaply in South America than in New York, it is because the selling-expense is less. When the manufacturer in Ohio gets an order from Argentina, he is able to ship the goods for about two-thirds the New York retail price. They go from his factory direct to the steamer, he gets his money within thirty days, and he has no further responsibility. No kind of business that comes to him is so clean and simple as an export shipment of this nature.

If those same goods went to his New York salesroom, however, there would be the item of selling-expense to deal with. Broadway rents are high. He carries all the year round between $10,000 and $20,000 worth of stock, representing capital, interest, taxes, insurance, depreciation, etc. Salesmen are paid $2,500 to $6,000 a year to put the goods into customers' hands. Time is needed to make sales. There are delivery charges, exchanges, and returns. Payments are often arranged on the instalment plan.

As a rule, one-third of the price that the customer pays for an article (other than staples) represents the manufacturing cost; another third, profits and accounting; and the remaining third the expense of selling. That is, roughly, the basis upon which millions of dollars in trade are handled every year.

Manufacturing-cost is made up of items that have been wonderfully systematized and trimmed down to close margins in modern production. Every penny goes for something tangible in raw materials, wages, machinery, power. Some time ago it was reported that certain manufacturers of pianos proposed to coöperate and to manufacture their own supplies more cheaply. It was then pointed out, with some derision, that such a project really meant loss, not saving, in an industry so highly specialized as piano-building. The piano manufacturer is as much an "assembler" as a builder. Sounding-boards, for instance, come from the timber country, where spruce

has been selected and stored for years. It would take years to get together such a stock of seasoned lumber. Hardware, felt, and other things have been shaved down in price to the very lowest figure.

And it is much the same with that third of what the consumer pays which goes to profits and accessory charges — tangible items that are kept down by competition. Two-thirds of the selling-price is taken up by manufacture, labor, wholesale purchases of materials, and other definite and manageable items.

But the third that stands for selling-expense has yet to be systematized. Money put into raw materials or labor goes for something definite and calculable. But money put into selling-expense goes in an odd number of ways. It is spent for a psychological impulse, such as advertising. It goes for railroad fares and unfruitful calls of salesmen. It is spent in "missionary" work to stimulate everybody, from wholesaler to merchant's clerks, making the outlet to the consumer wider and easier. It goes for "demonstrations," is sown broadcast in printed matter, is chopped up into samples. It must pay for the year's hesitation of the man who needed an office machine, and pay for his two months' investigation — and even pay somewhere for the sales that competitors did not make.

Selling-expense is, in the average business, a most elusive and unsystematic item of outgo, a most human item, and the item that now offers the largest margin for economies. In selling-expense manufacturers are beginning to look for opportunities to save money and energy, thus reducing prices still further to meet competition and at the same time clearing a more comfortable profit.

To sell goods more cheaply, quickly, directly, in greater volume, and over wider territory, that is the important business problem. Vast improvements have been made in factory processes, and the opportunities for lessened cost of this kind are narrow. But, in improvement of selling-methods, the ground has hardly been broken. This is the most human and responsive third of the business, and at present the third that most needs improvement.

Manufacturers once thought that salesmen could not be made. Now they are beginning to make them. Principles of selling are investigated and reduced to uniform practice and applied to definite classes of goods, always keeping in view, however, the intensely human quality of the act of selling. Once the salesman was self-taught, crafty, and glib. Now he is often a trained logician, and an expert in evidence. The untrained man calls a dozen times while the purchaser is deliberating and hesitating. The trained man calls once, makes certain points strikingly clear, and closes the sale at a higher price than others ask. He covers more territory, gives his house an advantage over competitors, and earns a large salary. Methods of finding the man who needs goods are devised to help salesmen. Goods themselves are made especially with "selling-value" in view. Once a salesman sold entirely by samples that he carried. Now he works from a sales agency, and takes with him only such data as will lead the prospective purchaser to visit a carefully equipped salesroom, where the goods can be more fully shown and explained, and a better quality sold. These are some of the ways in which the selling problem is now tried and solved. J. H. C.

GIFFORD PINCHOT, FORESTER

BY

HERBERT KNOX SMITH
(UNITED STATES COMMISSIONER OF CORPORATIONS)

PUBLIC service has been the one motive of Gifford Pinchot's life. Such motive, unmixed, is not common; still less commonly is it found with the other characteristics necessary to make it effective. What he has done and why he has been able to do it is a lesson in character.

Whatever line of work he might have selected on leaving college would probably have led him ultimately into the service, official or unofficial, of the country; but it so happened that his choice of the profession of forestry fitted him to do for the United States what no other man could or would have done in this

time — a task that had to be done, and that had to be commenced in this generation if commenced at all.

His work has dealt with the ultimate material resources of the nation. This wealth he has greatly helped to preserve. But he has also steadily worked to keep equitable the distribution and use of that wealth, the effect of such use on the citizen and on the making of homes. Without these considerations no policy for saving our resources could be permanent or could have justified or maintained itself against the inevitable attack of private interests interfered with by that policy.

His work began in 1892, in a consulting forestry practice for private owners of timber lands. On May 12, 1908, it rose to the climax of the great Conference on the Conservation of Natural Resources, where the Governors and delegates of forty-six states met, in the White House, the President, the Cabinet, the Supreme Court, and the Inland Waterways Commission in a consultation perhaps as far-reaching and of as great national importance as the Annapolis Convention of 1787.

On the opening day of that conference, the President, with the generous fairness to his men that is characteristic of him, stopped in his address to say.

"And it is only fair to give credit where credit is due. I want to say here that if it had not been for Gifford Pinchot this conference never would or could have been held."

From the private consulting practice to the conference of the President and the Governors there has been a steady logical development of Mr. Pinchot's work. In between, in astonishing sequence, lies the roll of things done — in 1897, special agent of the Secretary of the Interior to report on forest reserves; in 1898, chief of the Division of Forestry; then member of the Commission on the Public Lands, of the Committee on Organization of Government Scientific Work, of the Committee on Department Methods, of the Inland Waterways Commission; and since 1898, supervising the swiftly growing work of the Forest Service. The President now and then remarks drily that the reward of a man who does good work under his administration is more work. There are other rewards as well, but Mr. Pinchot certainly proves the President's proposition.

His work on the Public Lands Commission was typical, pointing out, as that committee did, the defects in the existing system of land laws and the provision of the homestead idea to a monopolization of great areas in a few hands.

The long, tedious task of the Committee on Department Methods, dealing with the infinite detail of departmental administration, was perhaps as little recognized by the public and as greatly to the benefit of the service as any of the numerous outside tasks he has undertaken.

The scope of the Inland Waterways work was broader, and certainly more congenial, touching, as it did, the conservation of the forests for the maintenance of stream flow. His part in shaping wisely the conclusions of that commission can hardly be overestimated.

But the United States Forest Service is Mr. Pinchot's own creation. On our modern maps he has painted the significant green areas that stand for the 164 millions of acres of land now in our national forests. He has made this service the preserver of our public timber-supply and a forceful example for private owners of timber lands. He has made the service practically self-sustaining, and, having proved this possible, his policy now is to invest money in our forests for the distant future, to show the commercial possibilities of such investment.

But far greater than any matter of income or expense, it has been his hard labor for the last ten years, fighting, persuading, convincing, educating, adjusting, with the hostile private interests affected over this immense area, with the indifferent public, with Congress, with the happy-go-lucky confidence of Americans still asleep in our tradition of inexhaustible resources at last to drive our people to recognize, as a matter of accepted public opinion, the imminent need of conserving our forests.

His treatment of this work has not been that of the impractical idealist, or intolerant reformer. So far as the national forests could be used without detriment to their future as timber resources, they have been made available for mining, grazing, cutting, and agriculture by a simple administration that is practical and prompt and the reverse of bureaucratic. The result has been to make enemies into friends, and friends into enthusiasts for his policy, and to bring about a change in public opinion that is astounding, in view of the short time in which this reversal of old ideas has been made. It is one thing to pass a statute. It is another

thing to change the sentiment of a great community, to pass a resolution of that public opinion that precedes, survives, overrules, and enforces statutes.

This is where the practical constructive leader comes out. He has taken into account public opinion. He knows that no great national policies can be effected by office research. Public interest must be formed behind any such policy to make it effective and permanent. He recognized that his work was not one of small affairs; that he must deal with the people of the United States, the ultimate source of public action. It shows the size of the man that he should have seen this task and faced it with unchanging purpose.

The work that he has done has been very great for any one man to accomplish. To understand how he has done the work, what the work means, and the spirit that is behind it, one must know the personality of the Forester. He was a Yale graduate in 1889; he studied forestry abroad, and in 1892 took up the practice of consulting forester. In 1898 he was appointed chief of the Division of Forestry in the Department of Agriculture, later the Forest Service. He is now forty-two years old. He is tall and erect, vigorous in carriage, with a clean-cut face and an intent look, full of kindness, absolutely unselfish, and without ambition for himself, except the ambition to do his work. He is a tennis and football player, hunter and athlete, as jolly as a boy and as full of fun; and next to the national forest in his regard comes deep-sea fishing and the tuna and tarpon.

He is by nature a builder and a constructor. Men are mostly of two classes, those in whom the critical faculty prevails, and those in whom the creative instinct is predominant. Mr. Pinchot is of the latter and rarer class, with the energy and decision of the leader, a game and generous fighter for principle, with the iron and fire, the steadfastness and wit that are the blended heritage of his Puritan and Huguenot ancestry. He has the finest regard for the feelings of others, a kindness that never hurts if it can be helped, a personal attractiveness that makes it hard for his friends to tell the truth about him and not seem to exaggerate. His character is explainable only by his single, underlying motive of service. To speak of his personal integrity is almost absurd to those who know him. A man of sane and vigorous life, open-air work and pleasures, self-trained in the great ideal of public service, is not the man to do anything small or mean or dishonest.

He has got the Forest Service so that, as he says, it will run itself. By this he means that it will run while he is out of the office and in the field. Therefore he does not stay in his office, but goes out and sees his men and their work for himself, traveling the dim trails of the great forests that stretch down the Western backbone of the continent, patroled by his lonely forest rangers. There he gets real results because he does not sit in his office and accept paper reports as a substitute for results.

Out of the Forest Service his ideals have broadened into the great field of national resources, the waterways, minerals, oil strata, soils, and timber-supply. And an ideal, with Mr. Pinchot, means always something to be realized. As the Inland Waterways Commission worked out its findings on the condition of the waterways and the reasons for their physical characteristics, their connection with commerce on the one hand and with the watershed forests on the other, there came clearly to him the ideal of a fundamental advance in the nation's policy as to its natural resources. That culminated in the great conference that lately took place in Washington. The report of the Waterways Commission (and the words and idea are largely Mr. Pinchot's) says:

"Our unsurpassed natural wealth and the eagerness of our people for immediate results, regardless of future needs, have led to a policy of extravagant consumption of national resources and to an encouragement of monopoly, whereby an excessive share of such resources has been diverted to the enrichment of the few rather than preserved for the equitable benefit of the many."

At that conference men who knew stated that our coal measures are being exhausted; that our available public lands are largely taken up; that our oil pools will last only a few generations more; that the end of our timber resources will be seen by this generation, if the present rate of consumption continues. It is at last brought home to the American people that their original natural wealth, which for two hundred years it has been their tradition to regard as unlimited and inexhaustible, will, if our present policy is continued, substantially be exhausted by the end of this century.

It is useless to strain adjectives to express the size of this question. If we do not forces

these results our children's children will feel them. If we do foresee and provide against them the credit will be largely Gifford Pinchot's. With the steady backing of President Roosevelt, he has made plain to us, by word and by example, the duty of the nation to provide for the nation's future and not to sacrifice it for the immediate interests of the individuals of one generation. His own character has gone far to make this ideal operative. His unselfish honesty and fearless frankness, I think, have made men ashamed, in his presence, to claim that any interest of theirs could be so great as that of the nation's for which he stood.

A more momentous question could hardly be laid before a nation than the one which he has raised, involving, as it does, not only the exhaustion of the sources of prosperity, but also the inequitable distribution of them, in defiance of our national ideals of equal opportunity. It is the combination of these two ideas that has been the keynote of Mr. Pinchot's work — conservation and replenishment of our natural resources, and, on the other hand, the equitable distribution of them, so that the highways of business opportunity may be open, so that the land may become a land of small owners and permanent homesteads, rather than a land of great holdings and tenant farmers, of people dependent, not only for their homes, but also for their minerals, their power, and the necessaries of life, on a few large monopolies.

Mr. Roosevelt has what is perhaps the final mark of the leader — the ability to get good men to do his work. As a writer in the English *Fortnightly Review* recently said:

> "Mr. Roosevelt has gathered around him a body of public servants who are nowhere surpassed. I question whether they are anywhere equalled for efficiency, self-sacrifice, and an absolute devotion to their country's interests. . . . They are content, and more than content, to sink themselves in the national service without a thought of private advance, and often at a heavy sacrifice of worldly honours, and to toil on, . . . sustained by their own native impulse to make of patriotism an efficient instrument of public betterment."

Gifford Pinchot is one of these men. He might have been a wealthy idler, so far as circumstances are concerned. For reasons inherent in himself, he has become one of the far-seeing empire-builders, the guardian of our material resources, the champion of their conservation and their rightful use.

THE NEXT MOVE IN SCHOOL SUPERVISION—HYGIENE

BY

EDWARD L. STEVENS,

ASSISTANT SUPERINTENDENT OF SCHOOLS IN NEW YORK CITY

THE community is beginning to realize its responsibility for the better care of the child. Child labor has been restricted. Child education has been made mandatory. Child health is being preserved. Child lives are being saved. We are learning a good deal about sanitation, the prevention of contagion, the correction of physical defects, the ample provision of light and air and play space. To the development of the science of preventive medicine the community is much indebted; but the great city problem of child health is still with us.

In our cities we have taken our children into flats and apartments, and the less fortunate into tenements. We have brought them in countless multitudes to flock together upon the streets and to sleep in poorly ventilated rooms or, in summer, upon the roofs. We permit their parents to breakfast them on stimulant and starch, to lunch them on a seed cake and a pickle, and to dine them upon canned stuff and Packingtown products. We deprive them of sleep, and, with the noise and feverish activity of the day, we impose upon them a continually increasing nerve-strain.

What are some of the things, therefore, that demand correction?

The school desk, although now adjustable, is still made use of in a manner to cause malposture and, as its result, spinal curvature. In many of our schools the color of the walls and ceiling has thus far been given little attention. We are still following in our approved kindergarten practice, the prescription of games or plays which require marching and singing at the same time, with the result of much dust inhalation. Dust and tuberculosis are still with us. We have thus far made little investigation into fatigue, its ætiology, its symptoms, or the method of its alleviation. Home work increases as the courses of study acquire more content. Books by the pound are carried home at night. The eyesight of children becomes increasingly defective as they progress through the grades, and to increase the defects we give young children books made of highly glazed paper, printed with types frequently of improper size. Incipient cases of St. Vitus dance are not detected. Stair climbing becomes a greater burden to our girls as our school buildings go farther up into the air.

The relation between proper nutrition and effective school work is recognized by a few but not by many. We are still ignorant as to the great number of children whose vigor is at a minimum because of poor dentition. We have yet failed to adapt our courses of study to the requirements of the period of adolescence. We are but making a beginning in the discussion of the problem of defective and abnormal children and it has been a few years only that we have known what was meant by the "adenoid" face. Programme making has been determined by the requirements of the courses of study rather than by the requirements of physiological age and fatigue. We have just begun to discover the corrective effect of play on fatigue, malposture, defective circulation, and similar evils. We do not yet know whether coëducation in secondary schools is best or not.

What then, shall school hygiene do?

It must decide, after scientific investigation, certain principles which shall determine the construction of school buildings. For example:

What shall be the size of the class room in order that light from the window or windows may, in sufficient quantity, reach the desks of pupils upon the far side of the room?

What shall be the length of the room in order that the pupils in the rear seats may see writing upon the black-boards on the front wall? What shall be the size of that writing?

What shall be the floor space per pupil? What shall be the cubic capacity of the room per pupil?

What shall be the system of heating and ventilating?

What shall be the color of the walls in order that eye-strain may be avoided? How shall the rooms be lighted artificially? What shall be the number of stairways; the number of floors; the height of the treads? What shall be the kind of school desk and school seat? Where shall the wardrobes for outer clothing be placed and how ventilated? How shall dust and dirt be removed?

It is gratifying to be able to say that most or all of these problems have been quite satisfactorily worked out in the schools of the city of New York, particularly in the buildings which have been erected during the past ten or fifteen years, but there are some questions which as yet remain unanswered. For example:

Shall we continue to make white lines upon a blackboard? Shall this board be a slate board? Shall we continue to use text books containing many half tone illustrations? Shall we continue to make the little boy (or girl) sit at the school desk while writing with his right elbow on the desk, his right shoulder elevated, his backbone twisted, and the head canted upon one side? Shall we continue to require home work, which, in many cases, means reading in a room imperfectly or insufficiently lighted? Shall we continue to classify pupils according to supposed mental attainments and not according to physiological age? Shall we continue the old-fashioned recess or shall we attempt to substitute group games? Shall we continue to ignore the relation of fatigue to malnutrition, imperfect dentition, lack of alternation of task, etc.? Shall we continue in our ignorance of the cause, symptoms, and forms of childrens' nervous diseases?

These and a score of other important problems demand our interest and our attention, in order that we may discover that form of organization and those methods of administration which may be corrective of evils found in the school and outside the school, which will operate as a means of prevention, and more than all, be affirmatively directive and helpful in making a stronger, more vigorous, and healthful race.

Perhaps, as Bishop Fallows says, some day we shall all expect to live to be one hundred and twenty years old. This great task of health protection and promotion devolves upon the public school organization, which during half a century has been steadily taking over, more and more, activities which have been less and less perfectly exercised in the home. We have had medical inspection; we must have medical (or hygienic) direction.

THE CONQUEST OF THE TROPICS

HOW COL. GORGAS'S SANITARY WORK AT PANAMA HAS PROVED THE POSSIBILITY OF HEALTHFUL TROPICAL RESIDENCE BY WHITE MEN

BY

OWEN WILSON

LIFTING Panama out of the tropics, clearing it of disease, making it a country of energy, a white man's country, that is the work of Colonel Gorgas, the chief sanitary officer of the Department of Sanitation on the canal strip and, since 1907, a member of the Canal Commission. With Panama thus transformed, the canal is being built. The French, even with the appliances of thirty years ago, might have succeeded — the traces of their labor are visible all across the Isthmus — had they not been scourged by the disease-blight of the tropics. The Old Guard under Napoleon never stood such losses as the laborers under the French régime on the Isthmus; and these laborers were largely blacks. It is no wonder that De Lesseps failed. Our advantage over him lies more in medicine than it does in engineering.

Colonel Gorgas comes from an army family and from a locality subject to yellow fever and malaria. His whole life has fitted him for the position he now finds himself in, an army surgeon fighting yellow fever and malaria in the tropics. His father, a graduate of West Point and an officer of the United States Army before the outbreak of the Civil War, rose to be Brigadier-general and Chief of Ordnance in the Confederate Army, and later became a professor in the University of the South. Colonel Gorgas himself is a native of the state of Alabama — his grandfather was at one time its governor — and he has served in the army for twenty-eight years. His early medical training, however, he got as a civilian. He graduated from the University of the South, at Sewanee, Tenn., with the degree of Bachelor of Arts, and came to the Bellevue Hospital Medical College, where he took his M. D. degree. In 1880, when he left New York to join the army, he had served the usual tour of duty in the Bellevue Hospital. His active service since has been sometimes in Florida, sometimes in the West, in Dakota, in the old Indian Territory, and on the Mexican border of Texas, and for the last ten years in the tropics. In all of these places he has left a circle of grateful patients among civilians and army people alike. More than this, he has left a circle of friends for he is a man of strong personality and wide interests, as well as a doctor of great achievements.

He is one of the most popular officers in the United States Army. He is an enthusiastic sportsman and an accomplished horseman. On foot and on horseback, he has explored the old trails and places of historic interest on the Isthmus. He is thoroughly versed in the romantic history of the Spanish Main, the careers of Balboa, of Pizarro, of Morgan, and of the other old-time heroes. He is active in the Young Men's Christian Association work on the Isthmus. "His personality," says one who has worked under him, "is that of the Southern gentleman of the old school." And he lives up to this description, for he dispenses old-fashioned hospitality at his home on Ancon Hill, overlooking the picturesque old city of Panama and the placid Pacific.

Many of Colonel Gorgas's sanitary achievements have been due to the exercise of diplomacy as well as to science — "the ability to labor and to wait." Only those who have worked along sanitary lines can thoroughly understand just what this means; the exercise of one of the rarest faculties in human

character — not to succumb to endless disappointment and discouragement. To his friends, it would seem that Colonel Gorgas's philosophy is a practical accomplishment of that so interestingly advocated by Dr. William Osler — the day's work, the golden rule, and an equanimity that rises superior to all the strain and stress of life.

COLONEL GORGAS IN THE SPANISH WAR

At the outbreak of the Spanish War he was assigned to the Santiago expedition and he had charge of the hospital at Siboney, where all the seriously sick were sent during the campaign. In December, 1898, after the capture of the city, he was sent to Havana to take charge of the yellow fever wards at the Las Animas hospital, where the contagious diseases in Havana were cared for, and later he was made Health Officer of Havana. He was fitted for this work by his previous experience with the disease in the United States. For example, he had the records of hundreds of cases which he had treated himself and temperature charts for many of them. Yet, he, as well as the rest of the medical profession, put no faith in the theory of Dr. Carlos Finlay, of Havana, that the female stegomyia mosquito alone could transmit yellow fever. As Colonel Gorgas himself says of Dr. Finlay:

"I . . . was thrown with him daily in consultation over yellow fever patients, during the first two years of our occupation, and I can recollect, in those years of our very pleasant and cordial relations, having spent a good many hours and a good deal of argument trying to show Dr. Finlay the absurdity of his mosquito theory of the transmission of yellow fever, but the doctor was a veteran, who had already had sixteen years experience in meeting arguments of other men like myself who knew that his theory was an absurdity, and he would not be convinced."

A curious condition of affairs existed in Havana. For the first time in centuries it was being cleaned. Every few years, for generations previous, yellow fever epidemics caught from Havana had broken out in the Southern states. Many people died and the quarantine paralyzed business. It was a continual menace both to health and to prosperity. So when Havana came under American rule it was determined to clean it, for it was the accepted belief that yellow fever was the result of filth and uncleanliness. So Havana was cleaned; probably no city has ever been cleaned better. The astonished inhabitants were forced into this virtue whether they wished it or not. Yet their astonishment and chagrin were not so great as that of the American authorities. They had purged the city to the satisfaction of the most captious critic and yet the yellow fever throve as before and, as if in mockery of their efforts, the very part of the city that was in the most sanitary condition had the most extensive epidemic.

THE DRAMATIC DISCOVERY AT HAVANA

Then the medical board of the army went down to Havana. What they did is an old story to the public but a short account of it may perhaps make it easier to understand what Colonel Gorgas has done in Panama since that time, and it has added significance when told in his words, for no other man realizes the value of the work more than he nor has used the knowledge gained more effectively. He says:

"It was a very dramatic and, it seems to me, the most mathematical piece of work ever done in medicine, either before or since that time. They (the board) took men, put them out in tents in the country, and kept them there under guard for a period of two weeks. As the incubation period of yellow fever was known to be six days, if they remained there free from fever for two weeks it was proof that they had not contracted fever before going there. They (the board members) would then take mosquitoes, which had before bitten yellow fever patients, and have them bite these men, and within from three to six days the men developed yellow fever. There were quite a number of cases of this kind. This proved positively that those men contracted yellow fever from these mosquitoes and in no other way.

"To make it still more impressive, Reed (chairman of the board) built a small house, so screened that mosquitoes could not get in, and divided this house into two rooms by a wire screen, so that the mosquitoes could not pass from one room to the other. He then put a man in each of these two rooms. In one of the rooms he liberated a few infected mosquitoes, and the man who lived in the room developed yellow fever after three or four days; the other man, although all conditions were exactly the same, with the

exception of the mosquitoes, continued to live in good health.

"He then built another house close and tight, with no ventilation whatever. In this room he placed the mattresses and sheets and clothing of patients who had died of yellow fever. Two men were kept in this building every night for a considerable length of time, yet none from this exposure contracted yellow fever.

"These experiments proved that yellow fever can only be transmitted by a female stegomyia mosquito which has bitten a yellow fever patient within three days after he has contracted the disease; and that the mosquito must have an incubation period of not less than twelve days, after which if she bites a non-immune person he will develop the disease within six days."

Some races such as the Negro have acquired immunity so that if they do not altogether escape the disease they have it lightly, and few die. Even men of the most susceptible races develop a powerful antitoxin which destroys the parasite within the first three days and if this susceptible man survives the disease, as three-fourths of them do, he is ever afterward immune.

With the knowledge gained from the lives of men — Dr. Lazear, one of the members of the army board and several of the men on whom the experiments were tried, succumbed to the fever — the health authorities of Havana set to work early in 1901 to exterminate the mosquitoes. On September 26th there was one case of yellow fever in Havana. From that time until the city was turned over to the Cuban authorities there was not another case. The scourge of centuries had been conquered.

PROMOTED AND SENT TO PANAMA

From Havana, Dr. Gorgas was sent to Panama with the rank of Colonel and Assistant Surgeon-General, for Congress had passed a special act raising him to that rank in recognition of his Cuban services. This is one of the few instances in history where sanitary achievement has been recognized by the state since Hippocrates was awarded a civic crown by the citizens of Athens for averting a pestilence from that city. This reflects much honor on our national legislature as well as on Colonel Gorgas, for republics are usually ungrateful to the quiet conquests *of science.*

The new task was even harder than the old one — and in a way more important, for while the United States was not infected to any great extent from Panama, the success of our gigantic canal venture depended on our making the canal zone a fit place for white men to work. It had never been so. The general instructions to pilots of the English merchant marine say:

"The Panama Canal district is one of the hottest, wettest, and most feverish regions in existence. Intermittent and malignant fevers are prevalent, and there is an epidemic of yellow fever at times. The death-rate under normal conditions is large."

This statement is not exaggerated. The average temperature at Panama is about 86 degrees Fahrenheit. The average rainfall is more than one hundred inches per annum, or three or four times as much as the rainfall in Washington. The Chagres River, which parallels the canal route on its northern end, is such a sluggish, mosquito-breeding stream that during the French occupancy the malaria which decimated their ranks was known as the Chagres fever. The drainage of the rest of the strip is very little better and it is all covered with a tropical jungle. Added to those unfavorable conditions was the lack of sanitation in the cities of Colon and Panama. In neither of them, nor in any of the towns between, was there a good water-supply or a sewerage system.

The English pilot instructions spoke of the death-rate being high even in normal times, which are times when there are few unacclimated whites and few non-immunes to yellow fever on the Isthmus. Whenever there has been an influx of foreigners to or across the zone the death-rate has increased.

THE TOLL OF THE TROPICS

During the four hundred years that the Isthmus has been used as a passage between the two oceans it has taken dreadful toll. In the old days, thousands of Spanish soldiers, priests, and merchants paid the penalty of the tropics in crossing this way. Many a gold-seeker in '49 succumbed to the Isthmian fevers. There was another heavy death-roll in the 'fifties when the Panama Railroad was built. In the 'eighties followed the awful mortality among the French. When Colonel Gorgas took charge at Panama, malaria was universal on the Isthmus and there were

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AS IT WAS IN COLON BEFORE THE ARMY DOCTORS TOOK CHARGE

Rain caught in barrels, the main water-supply of the inhabitants, was a prolific breeding-place for stegomyia (or yellow fever) mosquitoes

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AFTER THE AMERICAN OCCUPATION

An old French shack in the country with its rain-barrels covered by one of the mosquito brigades of the Department of Sanitation

yellow fever cases at both ports and in many of the villages between. Conditions were ripe for an appalling epidemic among the unacclimatized and non-immune workers from this country. As the Americans began to arrive the yellow fever increased. In the first part of 1905 the fever became very general. Finally, in April, two of the highest officials died. A panic followed. Employees resigned and left. The returning boats were crowded. It looked as if the project was doomed in its infancy. People lost confidence in the mosquito theory. The sanitary commission was dubbed a failure. Even the executive board of the Canal Commission was stampeded and recommended that Colonel Gorgas be relieved and some other health officer with different methods be tried. But this, fortu*nately,* was not done.

The fault was not with Colonel Gorgas nor with his methods — except that because of a legal tangle over our rights in the cities of Panama and Colon, and because of a lack of supplies, he had not been able to put his plans in operation until after the situation had become serious. It was in June that the executive board recommended that he be relieved. The fate of the Isthmian Canal — or at least this attempt to build it — was in doubt. But the chief sanitary officer still followed his convictions and his methods. As time went on, the skeptics were confounded. It was shown to the satisfaction of all that there are more things in heaven and earth than were dreamed of in their philosophy. Yellow fever was extinguished, the panic conquered, and the ultimate building of the canal became an accomplished fact. Soon after the panic,

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PALM AVENUE, CHRISTOBAL

Showing screened houses, concrete gutters, and well-kept streets. The Department of Sanitation in the canal zone does most of the work usually done by all city departments elsewhere, except the police

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HOSPITAL ROW AT COLON

The division of hospitals cares for about 1000 people all the time

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ONE OF THE OLD FRENCH HOSPITALS AT CHRISTOBAL

At one time during the French occupancy the death-rate from yellow fever was 2 per cent. per month. Under Colonel Gorgas the canal zone has escaped for more than a year and a half without a single case

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NEWLY PAVED SEVENTH STREET, PANAMA

In its many kinds of work the Department of Sanitation employs about 2000 men and spends $2,000,000 a year

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BRINGING PURE WATER TO PANAMA

The laborers in the foreground are laying mains for the new water-system. The small house is a water-station where *the Depart*ment of Sanitation supplies the inhabitants in the meanwhile. The rain-barrels are being abolished

the supplies had come, the legal tangle had been straightened out, and the Health Department was hard at work. Every house was inspected and stegomyia breeding-places destroyed. Ditches were made and screens put in wherever a yellow fever patient was found, the house sealed up and all the mosquitoes in it killed by fumigation so that they could not spread the disease. These measures were successful at Panama as they had been at Havana, and in each place the subjugation of the disease occupied about the same time. By December, the yellow fever had disappeared from the City of Panama entirely and in the whole canal zone there was but one case in 1906, and there has been none since.

Had Colonel Gorgas failed, as it was feared he would, in all probability the work on the canal would have ceased. In June, 1886, the French had 2,200 white employees on their rolls. In that one month forty-four of them died of yellow fever. If the death-rate among the Americans had been 2 per cent. a month from yellow fever, the Government could not have persuaded a corporal's guard to stay.

There was, however, still the malaria problem to deal with, and for efficiency on the canal work the control of malaria is almost as important as the extermination of yellow fever. It is a more usual and less dreaded disease and yet it is almost as fatal to efficient and economical work. A construction gang is like an army. An invalid in either case is worse than no man at all and costs more to

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THE MAIN STREET OF CULEBRA

Showing the garbage cans required by the sanitary officers. When they took charge there was no collecting of garbage in any of the towns on the Isthmus

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CUTTING BRUSH TO GET RID OF THE ANOPHELES (OR MALARIAL) MOSQUITOES

Beside this work, in 1907, the anopheles brigades dug fifty miles of new drainage ditches, and cleaned out 350 miles of old ones

keep than a well man. Not many die of malaria but it incapacitates many for work. Under the best conditions, white men can not work as much in the tropics as in the temperate zone, and the Negroes do not work nearly so well as the whites. With this inevitably decreased efficiency, it is all the more important that there be no costly sick-list.

But the ignorant and careless workers, particularly the Negroes, make the work of protecting them from the anopheles mosquito, which transmits malaria, unnecessarily hard. They break down the screens, prop open the doors, and leave old cans or other receptacles around to catch rain-water and serve as breeding-places. The result is that the Negroes are particularly susceptible to malaria. For example, in the month of July, 1906, there were twenty-six deaths from malaria. All but two of these were among Negroes. This *is accounted* for somewhat by the larger number of Negroes on the work, but their death-rate per 1,000 was double that of the whites. Much of this is due to their own carelessness. On the other hand, the children and wives of the American employees are almost free from malaria — freer than they would be in many parts of the United States — for the American housewife on the Isthmus is as careful to keep the mosquitoes and flies out of her house as the Negroes are careless in letting them in. Yet, in spite of the difficulties, the malaria has been reduced. In August, 1905, 71 per cent. of the cases in the Ancon Hospital were malarial. Two years later the proportion was 59 per cent. Malaria is still the greatest single cause of absence from work on the canal zone and probably will continue to be, but it is well enough under control to make the sick-rate about the same for the Isthmian workers, in spite of their being in the tropics, as is customary for similar bodies of laborers in the United States.

TWELFTH STREET, PANAMA, AS THE AMERICANS FOUND IT

Beside the malaria, there is another disease particularly fatal to the blacks, due likewise to their own habits. In the same month, July 1906, there were 151 deaths among the canal employees. Eighty-six of these were caused by pneumonia. Of the eighty-six who died, eighty-four were Negroes and two were whites, but neither of these from the United States. The Negroes as a rule have but one suit of clothes, in which they work during the day, and sleep during the night. During the day the clothes get wringing wet and during the night they dry out. As the nights get chilly the Negroes have ideal conditions for developing pneumonia, and many of them do. Steps have been taken to minimize these risks and the incidence of pneumonia is now rare.

Beside all of the ordinary accidents and diseases which are prevalent in other localities, the Isthmus has to be guarded against beri-beri, leprosy, plague, and smallpox. Beri-beri has not affected any Americans or Europeans, and very successful efforts are being made to root it out among the natives. A leper colony is being maintained at Palo Seco, an isolated spot on the Pacific coast, where all the Panama lepers are required to live. There is no danger, under present restrictions, that this disease will attack the working force.

There has been no smallpox on the Isthmus since February, 1907. The danger of smallpox is eliminated by vaccination by the quarantine officials at Panama and Colon, and by the official vaccinator who is constantly inspecting the zone.

TWELFTH STREET, PANAMA, AS IT IS NOW

Plague is now present in the Pacific South American ports, and the utmost care is being used to prevent its introduction into Panama by the maintenance of a strict quarantine and by general sanitation and warfare against rats. The most important thing is to put the city into such condition that plague would not spread if introduced.

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THE MOSQUITO-BREEDING CHAGRES RIVER

During the French régime the malaria which decimated their ranks was known as the Chagres fever.

The Sanitary Department maintains an extensive sanitarium for convalescents at Taboga Island, twelve miles down the Panama Bay from the city.

Colonel Gorgas's work is to see that the smallest possible proportion of the men on the Government pay-rolls are absent from work on account of illness. Guarding the people against the inevitable risks and against dangers from their own carelessness and ignorance takes a small army of men.

There is first of all the quarantine bureau,

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A NEGRO BACKYARD IN COLON

Owing to their ignorance and carelessness the sick-rate among the Negroes from malaria is twice as high as the rate among the whites

an outpost against the introduction of small-pox, yellow fever, and bubonic plague from the infected ports north and south of the Isthmus.

There is the bureau of health for the City of Panama which does almost all of the work usually done by city governments, except the police duties. It cleans the streets, removes garbage, distributes water in sections where hydrants are not accessible, oils the roads, and performs many other duties. The sick-inspection brigade visits daily every house where a non-immune lives. Wherever a case of any contagious disease is reported the disinfecting brigade calls. Last year they fumigated 239 houses and disinfected 323. Beside these,

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VULTURES IN PANAMA

The only street-cleaning department before the Americans came

there are the stegomyia and anopheles brigades. The first of these is devoted to the extermination of the fever-carrying stegomyia mosquito. A semi-weekly inspection is made of every house in the city in search of breeding-places, for this mosquito is domestic in its habits. It breeds almost entirely in or near human dwelling-places, preferably in clean rain-water. The anopheles brigade carries on similar warfare against the malarial mosquito, although neither brigade objects to killing any mosquito which it comes across. The anopheles variety, however, breeds mostly outside of the city and its brigade is busy mostly around the outskirts of the town, but it is not necessary to go very far, for the malarial

THE ENTRANCE TO THE ANCON HOSPITAL, PANAMA

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THE FEVER WARD AT THE ANCON HOSPITAL

The house in the rear is the home of Colonel W. C. Gorgas, the chief sanitary officer

mosquito has not a very long range of flight. The anopheles brigades all over the Isthmus are chiefly responsible for the 50 miles of ditches dug last year, the 18 miles lined, and the 383 miles of ditches cleaned, to say nothing of brush cutting. A similar indefatigable bureau is busy at Colon, a third takes charge of all the small towns between the two, the last being much the most important from the point of view of malaria. The division of hospitals, including the big general hospital at Ancon, cares for about 1,000 people all the time. At each of the railroad stations along the line there is a dispensary and sick-camp, equipped for emergency operating. Cases, so far as practicable, are turned into the two large hospitals at Panama and Colon. These are equipped just as extensively as any of the hospitals in the larger cities of the United States, with operating theatres, pavilion wards, electrical appliances, X-ray outfits, etc.

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IN THE SURGICAL WARD IN THE ANCON HOSPITAL

Which is equipped as fully as the hospitals in our large cities, with operating theatres, electrical appliances, X-ray outfits, etc.

Engaged in all this, and in screening buildings, overseeing the feeding of the Negro laborers, and many other activities, Colonel Gorgas has about 2,000 men. Many of the things which they are doing are unnecessary in temperate climates or if left undone do not affect the public health. This explains the cost of $2,000,000 a year, or about $50 a year for every worker in the canal zone. Part of this, of course, in fact about one-half, would be a necessary expenditure for that population anywhere. The rest is what we pay for lifting the canal zone out of the tropics; that is, about $25 per year for each employee. Without this expenditure, the steam shovels and the dump-trains would be standing idle; our machinery would be rusting with that of the French, for in spite of gross extravagance they made much progress on the canal before they succumbed to the tropics. "Making the dirt fly" is as much a matter of keeping the mosquitoes off as it is of keeping the trains and the shovels moving. And this is a fact to be kept in mind lest we forget what science and practical experience have taught us.

Colonel Gorgas's achievement has an even greater world-wide significance than making the construction of the Canal possible. It is

one of the medical triumphs which lend a new aspect to the control of the tropics. There need no longer be any country unfit for the white man. The Anglo-Saxon race can be at home on the equator as in the temperate zones. That this is so, that the long-dreamed-project of a waterway between the oceans is now certain of accomplishment, that the once impossible is now a question simply of expenditure of sufficient time and money, all these wonders may be attributed in no small degree to the scientific knowledge and human understanding of William Crawford Gorgas of the United States Army.

WITH A PROSPERITY TRAIN IN GEORGIA

SIX WEEKS' RUN OF A "SPECIAL" SPREADING THE KNOWLEDGE OF PROFITABLE AGRICULTURE AMONG THE FARMERS

BY

S. MAYS BALL

LAST winter on several occasions groups of farmers gathered at small stations in Georgia and by waving a red danger-signal held up a train. In every case it was the same — to see the farming exhibit in the baggage car and to hear a lecture by one of the farming specialists on board. These farmers were seeking knowledge and were so earnest in their search that, when they found they could not reach one of the regular stopping-places of this educational train, they held it

THE AGRICULTURAL EDUCATION TRAIN AT A TYPICAL, SMALL STOPPING-PLACE

The train made a six-weeks' trip, stopped at about one hundred and eighty stations, and more than three hundred thousand people listened to the lectures of the experts on board

TALKING SUCCESSFUL FARMING FROM A STATION PLATFORM

The lecturers were members of the faculty of the Georgia Agricultural College. The train was provided by the Southern Railway

up. It consisted of three cars — one sixty-foot baggage coach for exhibits and two passenger coaches, each seating sixty persons.

In this day of "railroad legislation" it is a pleasure to call attention to the fact that, when the state of Georgia desired to carry on the study of agriculture throughout the state by means of an educational train, it was only through the coöperation of the railroads that this object could be accomplished, as the Legislature had made no appropriation for the State College of Agriculture at Athens and its work is now being done on money borrowed on the joint note of the trustees. When informed of the plan, the railroads doing business in Georgia quickly advised Professor

A TYPICAL AUDIENCE

Made up of country merchants, independent farmers, and tenants — Negroes as well as whites. Some drove as far as twenty miles before eight o'clock to meet the train

Soule, President of the College of Agriculture, that the Southern Railway would furnish the train and all of the other roads would transport it over their lines free of charge. This action was most generous, as it has been estimated by Professor Soule that the train-service furnished, if paid for at regular rates, would have cost at least $25,000.

The train left Athens on the 10th of February and spent about six weeks on the road. Every working day of that time it made five regular stops and the specialists met five different crowds, ranging from one to five thousand people, to whom they explained and demonstrated the fundamental facts of prosperous farming. In all, they talked to more than three hundred thousand people and reached practically every county in the state, and this involved a great amount of traveling, for Georgia is about three hundred miles long and about two hundred and fifty miles wide. The Governor and the State Commissioner of Agriculture accompanied the train on many of its runs and addressed the people. But even more lastingly valuable than the addresses were the object-lessons of the exhibits which were so practical that none could miss their meaning or their importance. They consisted of photographs showing the work of the State College of Agriculture; courses of study provided in the State College and an outline of a farmer's reading course; sources of fertilizing materials; methods of mixing fertilizers; fertilizer formulas for the principal farm crops; the grades and standards of short and long staple cotton; practical methods of selecting corn and cotton for improvement; the best varieties of cotton to grow; cotton-seed and the by-products obtained from the same; the best varieties of corn adapted for growth in the state; spraying outfits for orchards and gardens; methods of cutting and layering plants; diseases of fruit trees and means of controlling the same, together with facts to be observed in pruning. There was also a display of field and garden seeds. The

A PART OF THE THREE THOUSAND PEOPLE AWAITING THE TRAIN AT WAYNESBORO

The many letters received by Professor Soule and his assistants since the trip ended shows that they have got in close touch with the farmers throughout the state

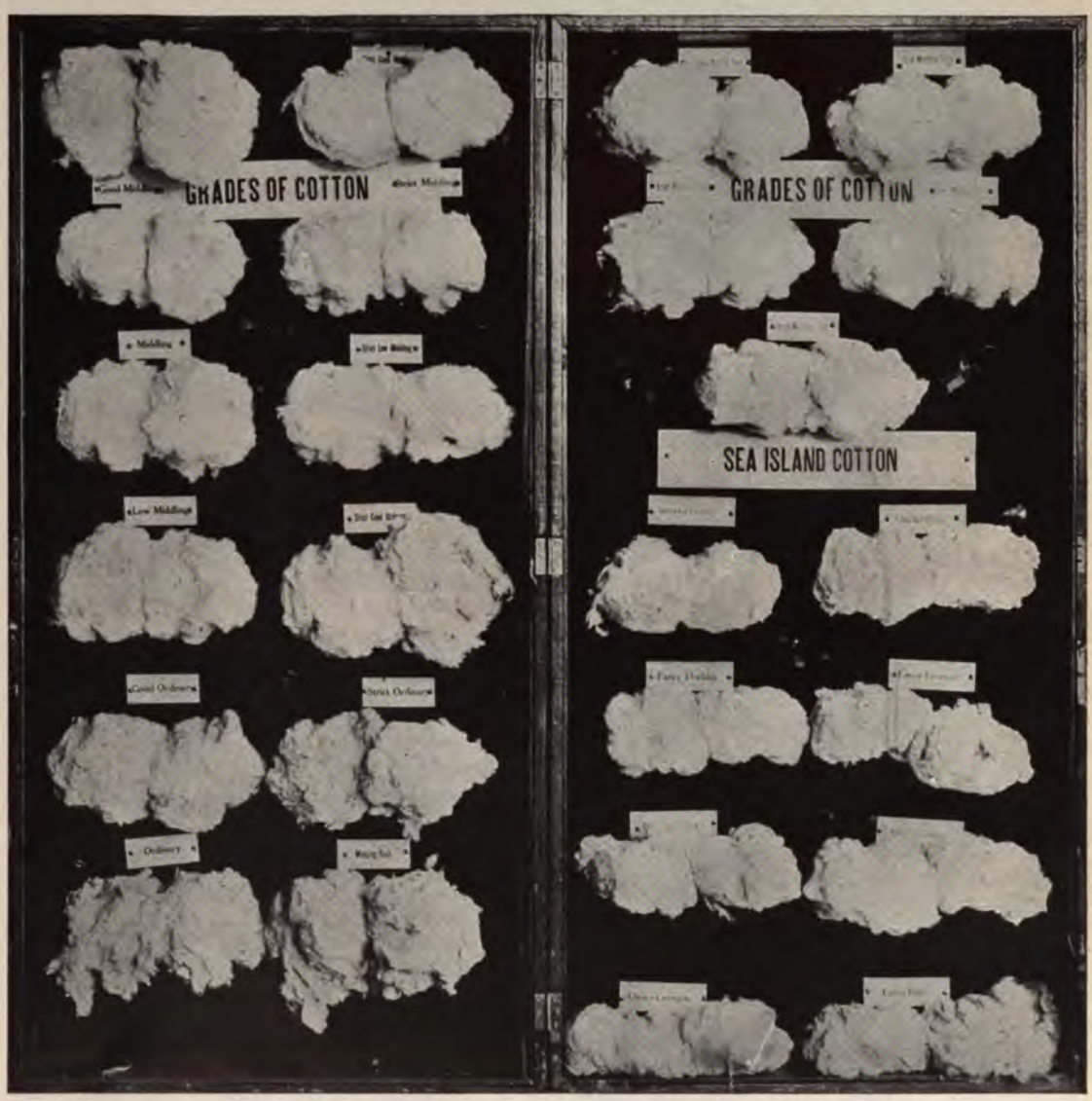
equipment needed for a small farm dairy, rations suitable for various classes of live stock, and samples of forage crops adapted to the state were also shown. There was a display of farm implements and machinery, and maps and charts showing important facts which have been discovered through the researches of the experiment stations.

A PART OF THE COTTON EXHIBIT

The agricultural experts on the train explained to thousands how to eliminate the undesirable plants by seed-selection, how to strengthen their soil by the rotation of crops, how to combat the diseases and insects which prey upon cotton — knowledge which on many farms will result in doubling the yield

It was a good-humored yet serious crowd that gathered at the stopping places of the train and their faces lighted up with expectancy as it rolled in. There were fathers and mothers, dressed in their Sunday best, many of the mothers with babies in arms, showing the sacrifice that they had made to come, and their earnest desire for change in the routine of their every-day life. There were sturdy-looking farmers, well dressed and bearing evidence of thrift and prosperity. There were country and city merchants. Fringing

every crowd were the Negroes. They had been encouraged by the owners of the plantations on which they worked to come and hear what was said and see the exhibits. They were well behaved and interested. They listened to town in buggies, evidence of their success in tilling the soil and the profits that had accrued during the recent years of high-priced cotton. They had the same opportunity of seeing the exhibits, asking questions,



SAMPLES OF DIFFERENT GRADES OF COTTON

Although most of the farmers who visited the train were cotton-raisers, comparatively few knew the difference in the grades by which the price is fixed. There were many other practical exhibits, such as a small farm-dairy equipment, rations suitable for different classes of live-stock, spraying outfits, etc.

closely and were anxious to have their names enrolled for literature to be sent later as well as to secure the pamphlets and circulars which were distributed at every stop. Many of them owned their own land and had driven and benefiting by the educational train as had the other citizens.

Back of the Negroes were arrayed the vehicles in which the people had come to the station, and they were of every kind and

A GROUP OF SCHOOL-CHILDREN THAT VISITED THE TRAIN

description. There were heavy farm wagons drawn by oxen, buggies drawn by blooded horses, and all the wide range of conveyances between.

All kinds of questions were propounded to the lecturers by the visitors who passed through the exhibit car, and from these questions the lecturers learned much about the needs

A CROWD GATHERED IN THE CARS FOR A LECTURE

The man standing in the middle of the picture is Governor Hoke Smith, who, with the State Commissioner of Agriculture accompanied the train on a part of its trip

of the farmers. One, for example, reported that he had been trying to grow cow-peas for ten years and had failed; now he realized that by testing his soil he could tell whether or not it was acid that prevented him and, if it were, by supplying lime he could overcome what had been a stumbling-block for years. There were questions on soil cultivation and on the feeding of cotton-seed meal; on the best books to read; where to obtain information about fruit; how to select seed-cotton and corn; what was the cause of the disease known as anthracnose, and how to remedy it; why the San José scale could not be more successfully controlled in the peach-orchards of the state; how to grow water-melons; and a thousand other questions — all of an entirely practical character and the solutions of which meant greater prosperity for the farmer. Comparatively few had ever seen the "standards" and "grades of cotton," and this exhibit was a constant source of surprise and interest. Many did not know that oil, soap, and lard substitutes were made from cotton seed. The hand-gin to be used in selecting improved strains of seed-cotton attracted great attention. It was examined by thousands who did not know that such a machine was made but who vowed that they would purchase one for this year's work. The automatic churn, the cream-separator, the fertilizer-mixer were thoroughly examined and approved. Probably the greatest interest centred in the mixing of fertilizers. Surprise was expressed at the comparative simplicity of compounding the various elements of the plant-food into rations suitable for the plants grown in the different localities of the state.

Once in a while when the train approached a station the crowd seemed irresponsive, but the earnestness of the speakers and the value of the information soon roused hearty appreciation, and it was with sincere regret and the frequently expressed hope that it would return next year that the farmers saw the train leave. An old Negro woman standing on the car-steps during a crowded meeting, quite unable to get close enough to hear the speakers, voiced the general enthusiasm. At the conclusion of an address by Chancellor Barrow of the University of Georgia, she laughed loudly, clapped her hands, and said, "I could n't hear a word of it, but I jes' knows it was good."

Occasionally a farmer stepped up to Professor Soule and said, "Partner, would you mind writing my name on this card?" Some of the farmers who asked the lecturers to sign their names for them added, "I can't write, but my children at home can, and they 'll read to me all of the papers that you send."

The old idea that the farmers are indifferent to education has been shattered by the trip of this educational train through Georgia. The eagerness with which they sought literature pertaining to their problems and the questions propounded by them show that they are alive to the situation. Sentiment has changed wonderfully toward agricultural education in the last few years, and it has been brought about mainly by personal work among the farmers. They now realize that their main need is not to know how to lay off the cotton rows, but to understand all the underlying principles involved in cotton production. Here and there evidence was found that they are beginning to select seed-cotton and corn and that they are learning by degrees to control the diseases and insects which were preying on their fields and that they were anxious to send their children to school so that they might aid their parents in the fight both should make to protect their crops. It was not uncommon to meet a farmer who said with pride, "I am sending my children to the district agricultural school and later expect to send them to the university and educate them to understand thoroughly their business as farmers." The state of Georgia is establishing an agricultural school in each congressional district.

Professor Soule and his assistants have appealed to the farmers in a particularly happy and successful manner. The farmers showed an avidity for practical knowledge which neither agricultural educators, students of social problems, nor anyone else expected. A tremendous opportunity for the creation of wealth and comfort thus presents itself. For example, some of the obvious and concrete tasks in Georgia are to teach the farmers:

To use cotton-seed-meal as a food and as a fertilizer. It is estimated that this will save $5,000,000 a year.

To keep their cotton-seed dry. It is estimated that loss in the value of cotton-seed oil from wet seed is $2,000,000 a year.

To select cotton-seed with care, both to get rid of plant diseases, particularly anthracnose and black root, and also to increase the

yield. Anthracnose probably causes a loss of $5,000,000 a year, yet the farmers are responsible for its spread, since a large proportion of the seed used each year contains the spores which naturally infest the ground on which the cotton is grown and become so numerous through continuous growth on the same land year after year that they sometimes destroy from 60 to 100 per cent. of the bolls which develop. There are about four million acres of land in the state devoted to cotton, the yield being about two hundred and twenty-five pounds of lint cotton per acre. By systematic seed selection the average yield could be raised to five hundred pounds per acre. Many farmers where seed selection is practised now succeed even better than this.

To practise rotation of crops. The purchase of nitrogen in fertilizers, which may be stored in the soil through the growth of leguminous crops, costs the farmers at least five million dollars a year; and a failure to use improved implements and larger work-animals so as to more thoroughly prepare the soil and economize manual labor adds another three million dollars. The old belief was that it was better to grow ten acres in cotton, yielding two hundred pounds of lint per acre, than to handle five so as to obtain a bale or a bale and a half per acre. If intensive cultivation were practised it would mean that the area devoted to cotton could be cut in two, and the balance of the land devoted to the growing of crops suitable for the grazing of hogs and maintenance of dairy cows, which would leave the farmer the money obtained from his cotton crop as a surplus every year. As it is, he now has to spend the chief part of the money received from the cotton to buy the necessary supplies which he can grow on his own plantation cheaper and to better advantage than he can purchase them.

To use improved machinery and better stock. The high price and scarcity of labor make it imperative that larger and better machinery be utilized. The greater portion of the land in the state intended for crop production in 1908 will only be broken from two to three inches deep. The subsoil has been compacted by being plowed when wet for many years, and it is impossible for the air and moisture to penetrate the soil and assist in rendering free the latent plant-food contained below. It is equally impossible for the roots of plants to strike down in the soil and gather the material necessary for their perfect growth and development. It will, of course, take larger and heavier mules to operate these machines, but mule-power is cheaper and more satisfactory than hand-power, and with the increased size in mules will come a corresponding decrease in the use of the hoe, which has come down to the South as a relic of slavery days but must now be abandoned on account of the cost and difficulty of securing satisfactory labor. The benefits which larger implements and greater mule-power will confer upon the farmers can not be estimated, but it is safe to say that some facts were called to the attention of those visiting the train which will cause them to reflect seriously over these propositions.

To exterminate the cattle-tick, which now causes a loss of three million dollars or more a year. Investigations have shown how this may be done. In all, there is an avoidable loss of more than forty million dollars in Georgia every year. This is no reflection on the farmers of the state and is not a criticism in any sense of the word. It is simply a calm and dispassionate statement of the facts. This specific forty million dollars to be saved, however, will be the basis of a much larger sum gained. For, when the farmers get the habit of scientific farming, each one will become, according to his ability, an investigator discovering new and better methods than even the specialists know now. The greatest benefit will not be the accomplishment of any definite set of results but the changed attitude of the farmers toward the acquisition of knowledge.

The beginning of the change is already at hand, as the results of the educational train show. Already a flood of inquiries is being received on every conceivable subject from all sections of the state and from all classes of citizens. It is quite evident from the tone of these letters that a widespread appreciation of agricultural education is developing, and that public sentiment is changing entirely from one of prejudice and opposition to a firm belief in the benefits which it will confer upon the population as a whole. There is an evident thirst and seeking after information. The old myths and fables are passing away and the practices of our forefathers are giving way to new and progressive ideas. There is a vitalizing hope and inspiration in the atmosphere; a turning toward the light of knowledge; a determination to secure education

and to succeed; a growing faith in the power of research to solve the problems of the farmer; a better appreciation of the relation of science to the solution of perplexing agricultural problems; a firm belief that man is no longer to be the servant of nature, but that nature is to be his servant when he knows and understands her peculiarities and makes her will subservient to his wishes.

This end, so desirable and so fraught with momentous possibilities to the future of the commonwealth, can only be attained through the development of agricultural education, and when it is brought about there will be a conservation, and at the same time a proper exploitation and development, of the almost untouched resources of the soil that will be marvelous to see. And this era is coming, for the farmers realize these facts, and there are now scientists broad enough in human sympathy to impart their knowledge to the people.

NEW WORK IN EDUCATION

TENDENCIES, METHODS, DIRECTIONS, AND NEEDS THAT CALL FOR THE GREATEST EMPHASIS. THE VIEWS OF PROMINENT EDUCATIONAL WORKERS

NEW directions of educational effort, new subjects, changes of emphasis, even new methods and new aims are everywhere discussed and are in many places on trial. THE WORLD'S WORK sent the following inquiry to a number of distinguished educational workers:

"What new subject or new method or new direction of effort or new tendency in educational work is of most value and significance and now needs most emphasis and encouragement?"

Among the most suggestive replies that have been received are the following:

THE "ELECTIVE" CHAOS

BY

ARTHUR T. HADLEY

(PRESIDENT OF YALE UNIVERSITY)

IF YOU simply ask what "direction" of effort is most promising, I should reply: The growing sense on the part of our school and college authorities that something must be done to bring order out of the chaos into which the indiscriminate application of the elective system has plunged us.

THE JUNIOR COLLEGE

BY

DAVID S. JORDAN

(PRESIDENT OF LELAND STANFORD JUNIOR UNIVERSITY)

IN THE field of higher education, I think that the most important movement by far is that toward the differentiation of the university from the college, by the removal from the university of the "junior college," the work of the present freshman and sophomore years.

This would at once make the college a support rather than a rival of the university. It would enable the university to throw its whole strength into technical, professional, and research training. It would tend to develop university teachers, men with skill and training for research, while it would at the same time place equal stress on the excellence in teaching ability demanded in the best colleges. It would raise the universities of America to the educational level of the universities of Germany. Beginning with the present junior year, we would neutralize the mistake we have made by pushing the degree of A. B., the culture training before entering on definite lines of study, two years too high.

No institution has yet made this change, but it is an inevitable one, and about five years of discussion and preparation will bring it about. Two years of preparation can be better given in a well-ordered college than in an over-swollen university. At the same time, the university can do better work in the junior and senior years than the more narrowly equipped colleges can do. A university is a collection of books, laboratories, hospitals, and the like, where instruction for professional life is given through methods of investigation. Another element in this change will be the release of the university from drill-work and from the details of boy-discipline.

To understand how the American university

professor has been held down, we have only to imagine the influx into a German university, as Leipsic, for example, of a number of students from the last two years of the gymnasium course, with their teachers, all becoming part of the university, all teachers to be part of the same régime, and all students to be subjected to the same rule.

The resultant confusion is parallel with that which rules to-day in all our large American institutions. The remedy is the revival and rehabilitation of the college, and the reduction in population, with intensification of work, of the great schools properly called universities. Of these, there is room for about thirty in the United States at present.

In the secondary schools, the movement from linguistic ideals toward training in handicraft and in science is going on, for the most part with good results. The student properly taught should at no period be allowed to lose the use of his hands, or his orientation in the visible and tangible universe in which he lives.

The extension of out-of-door school work, summer camps and the like for boys and girls, is a notable movement deserving all possible encouragement.

It is also good to think more and more seriously as to what we are teaching in the schools, why we do it, and what effect, good or bad, it has on the body of students, and on the exceptional individual.

"ELECTIVE" ABUSES

BY

CYRUS NORTHROP

(PRESIDENT OF THE UNIVERSITY OF MINNESOTA)

THE tendency in educational work most deserving of encouragement is the preparatory trade-work in public schools, in trade-schools, and the correction of the abuses of the elective system in colleges.

TO RAISE OUR STANDARD

BY

G. STANLEY HALL

(PRESIDENT OF CLARK UNIVERSITY)

I SAY unhesitatingly that the greatest educational need in this country is a higher grade of university work and better university ideals. While our great universities have become magnificent in wealth, buildings, and numbers, there can be do doubt that scientific ideals have declined within the last decade. It should be a matter of national disgrace that the apex of our educational system is in Europe, particularly in Germany, where so many of our best graduates have to go. The standard of scholarship not only of students but of professors is often too low, and those of the latter who are content to live laborious days in the pursuit of truth, to be her priests and in her pay, are far too few in this country. In this respect we need nothing less than a kind of scientific revival of conversion.

TWELVE STEPS FORWARD

BY

ELMER ELLSWORTH BROWN

(UNITED STATES COMMISSIONER OF EDUCATION)

THE following twelve concrete suggestions which I present below refer to definite and typical manifestations of educational advance.

(1) The interest in education of a hygienic sort has culminated in the organization of the American School Hygiene Association, and in the Second International Congress on School Hygiene at London, August 5–10, 1907. The past year accordingly marks an epoch in the hygienic aspect of our education.

(2) The Third International Congress for the Advancement of Drawing and Art Teaching to be held in London in August, 1908, shows the strong interest which has already grown up on the side of education which it represents. With drawing, there is now closely associated the so-called arts and crafts movements which has faddism mixed in with it but has a good deal also that is better than fad.

(3) The National Society for the Promotion of Industrial Education that was organized November 16, 1906, shows that we have become seriously interested in the making of trade-schools, and the two commissions in Massachusetts and legislation in two or three other states further emphasize this.

(4) The interest in rural schools has taken a new turn. The effort to make a really new type of rural education is represented by the establishment of agricultural high schools in Wisconsin, Georgia, and Michigan; by the introduction in Congress of the Davis bill and the Burkett bill, for national aid to education of this kind; and by numerous other special efforts in various parts of the country.

(5) The recent International Congress on the Welfare of the Child brought together at Washington by the Mothers' Congress gave

new points to the long-standing desire for a training of women for the specific duties of the home. Several of the European nations are now able to point to successful schools for the training of mothers. We have not gone so far, but the growth of interest in these European experiments is manifest.

(6) Closely connected with this movement is the recent growth of organizations for bringing the school and the home nearer together. Especial interest attaches just now to the experiment being made in Philadelphia, under which the school building becomes a social centre for the neighborhood in which it stands.

(7) The fourth Camp Conference, held on the 26th of April, 1905, showed that this effort at a real outdoor education in the time commonly called vacation has become an undertaking of considerable importance, and one to be reckoned with in the future.

(8) The publicity given to the recent Playgrounds Banquet in New York City calls attention to a group of movements concerning themselves with provision for wholesome play, which have undoubted educational value and are likely to become increasingly important.

(9) The experiment now being made at Cincinnati University, in a combination of apprenticeship with technical study of collegiate grade, is representative of a far-reaching endeavor to bring together two kinds of education which for centuries have gone apart, namely, the education of the school and education by the actual doing of the things of ordinary daily life. The further progress of the Cincinnati experiment and related experiments in Pittsburg and Boston calls for close attention.

(10) In college education the attention of thoughtful observers is still turned to Princeton, but there have been experiments and happenings in other institutions which have to do with the same general tendency. Colleges are seeking with all earnestness to secure adequate training for individual students under fair conditions. Princeton is showing clearly some of the difficulties of the situation and is also contributing thought and experience which will furnish at least suggestion and perhaps more than suggestion to other institutions.

(11) International education keeps cropping up in new forms. Just now it is proposed to interchange teachers between the secondary schools and colleges of this country and the secondary schools of Germany, under the management, on this side of the water, of the Carnegie Foundation, For The Advancement Of Teaching.

(12) The endeavor to get at higher and better-defined educational standards has been making itself manifest in too many directions to be enumerated. The attempt by the Association of American Universities, at its meeting in Ann Arbor in January last, to make the conditions of membership in that body objective and automatic in their working, is one of the most recent phases of this movement.

THE BROADENING OF EDUCATION

BY

DAVID F. HOUSTON

(PRESIDENT OF THE UNIVERSITY OF TEXAS)

IT IS probably not true that any entirely new subject has been provided, or new method has been employed in educational work, or that there is any direction of effort, or tendency, which can properly be termed new. Every new subject has been introduced and every new method has been employed somewhere in the educational field. I shall summarize as briefly as possible some of the educational activities which strike me as being significant extensions of work.

(1) The view that universities and colleges may legitimately give instruction aimed definitely to assist men who are going into business has received striking recognition in a number of large institutions, and there is a tendency on the part of other institutions to follow their example. In addition to the orthodox courses in government and economics, universities are now offering courses, even for undergraduates, such as the following: Introduction to Economic Geography; the Materials of Commerce; Geography of International Trade; Elements of Insurance; Introduction to Accounting; Practical Banking; Actuarial Science; the Investment Market; Corporation Finance; Railway Organization, Management, etc.; Railway Finance; Modern Industrial Problems; Mechanism and Technique of Trade; Business Forms and Practice; Consular Service; the Money Market; Problems of Labor; Agricultural Industries; etc. Students who complete the work in such schools will not be able immediately to manage efficiently great or small businesses, but they will be prepared to enter intelligently upon apprenticeships and will

develop broader views and a more comprehensive grasp than men who go up from the ranks. It will probably be true also that such men will develop a more responsible leadership in industrial affairs.

(2) Within recent years the conception has greatly developed that the university may extend its benefits, not only to the students within its walls, but to the masses of people who desire further training, but who are prevented from attending the university by their occupations. For many years this work has been successfully carried on in England, especially under the guidance of Oxford and Cambridge. It has become an established part of such universities as Chicago, Columbia, and Wisconsin. Through this work, extension lectures at suitable centres are given by university professors, and elaborate correspondence courses under well-organized bureaus are given to great numbers of students. The future will probably witness a tremendous extension of educational activity in this direction.

(3) It may perhaps seem singular that professional training for teachers should be mentioned as an extension of educational work. As a matter of fact, there is perhaps nowhere in this country adequate recognition of the need of professional training for teachers. It is probably not an exaggeration to say that the average college professor is at least doubtful of the value of anything except training in subject matter, for teachers. In the face of much opposition, however, the demands of teachers for professional recognition and for an opportunity to secure higher professional training are prevailing, and one of the most significant developments is the rapid growth of separate departments of education on an adequate basis in our universities and colleges. This is due, in a measure, to the larger public recognition of the value of the teacher, and will, in time, tend to increase the public appreciation of the teacher's service.

(4) The value of industrial training has long been recognized by educators and other intelligent citizens. Progress in establishing industrial courses within the school system as organized, or in establishing special industrial schools, has been slow. Indications are that the future will witness rapid progress. There is still considerable confusion in the minds of the leaders as to what provision should be made for industrial training. There is a general agreement that manual training should be introduced into both urban and rural schools as the funds permit. Recently, especially throughout the South and West, a growing demand has arisen for the teaching of agriculture in the secondary schools.

A strong plea is being made for trade-schools that are frankly trade-schools and nothing else. That such schools would be especially serviceable in the South and in large cities throughout the country is obvious. They would perhaps be the nearest approach possible to an enforced universal system of trade discipline. There is danger in the campaign which is being waged for technical and trade education of all kinds, that the natural leaning of people to practical things will be unduly emphasized and that, in attempting to provide for these things, they will tear down the strong foundations of liberal training that have been laid, or that they will fail to extend these. Indications of increasing difficulty in the way of liberal training are apparent. The obviously wise course is to strengthen what we have and to aid all other things that are useful. Any other course would be little short of criminal.

TEACHING A MAN HIS JOB

BY

BOOKER T. WASHINGTON

(PRINCIPAL OF THE TUSKEGEE INSTITUTE)

WHILE education is making immense progress in all directions, at the present time the most important advance in popular education, in my opinion, has been in the direction of bringing the masses of the people in larger numbers and in a more direct and effective manner into practical working relations with the schools. Gradually we are beginning to understand that, in order to keep pace with the rapid changes that are going on in the world, the average man, the man on the farm, the man in the workshop, as well as the man in the laboratory and the clinic, must become a student. At the present time the average man who desires to keep at the head of his trade or profession must read something more than the daily paper. He must read his trade-paper. He must keep track of the improvements that are constantly being made in his particular line of work and to do this he must study at home or in his shop, and in some systematic way, the best and most scientific methods. This is breaking down the old wall that separated the school from real

life. It has compelled the farmer, the mechanic and the doctor to go back to school, to become student, and to retain the student habit in reference to the practice of their trades and professions.

On the other hand, the same need has compelled the universities and the schools to go outside of their walls in order to reach the masses of the people. It is responsible for the night-schools and the university extension work and the correspondence schools of all kinds. If I were to name a single instance of this new policy of taking education to the man on the job, an instance which seems to me to be more thorough-going and more fruitful of good than any other of which I know, I should refer to the work that the General Education Board is doing in conjunction with the Agricultural Department at Washington in order to instruct the farmers of the South, by practical demonstrations on their own farms, in the newer and better methods of cultivating the soil. No other single agency, I am sure, is destined to do more in the task of creating the New South.

TRAINING BY OBSERVATION

BY
H. C. BUMPUS
(DIRECTOR OF THE AMERICAN MUSEUM OF NATURAL HISTORY)

AT THE present time, that tendency in educational work which recognizes the prime instructional value of objective observation and the capacity of the average human being to learn without being deliberately taught is of the utmost significance and seems to be receiving pretty generous encouragement.

Until recently there has been a subtle something about so-called educational methods that conveyed the idea that normal educational processes occurred only when a superior mind was in the neighborhood of some inferior rational being — that an educational act that did not involve "impartation" was incomplete — that the verb "to educate" was expressive of aggressive activity on the part of one person and passive receptivity on the part of another person.

Correction of this misconception has not resulted from deliberate effort either on the part of professional educators or on the part of those being educated. It has come about, rather, through one of those changes in general opinion that occasionally affect the human race; quite analogous to the migratory movements of certain animals, the causes of which cannot be determined, but the results of which are of vital importance to the species affected.

People are increasingly inclined to observe and then to draw their own conclusions. This is the real process of education; it is a function of intelligence; it is the activity of an independent being; it represents a commendable effort on the part of a healthy individual to seek information at its source. Moreover, it is the primitive and the almost universal method adopted by Nature — the animal is educated by experience, not by training.

That this change in the method of education, this recognition of the value of untrammeled opinion, is widespread is supported by abundant evidence. Children no longer have the principles of good behavior dinned into them — objective illustrations are found to be more potent. Teachers have discovered that arbitrary methods lead to discord. The professor is no longer a final authority. The infallibility of the physician is often questioned. People distinguish between what is lawful and what is right. Newspapers admit the difficulty of swaying popular opinion, and even the so-called uneducated have become increasingly critical.

The constructive results that have accompanied the decadence of didactic educational methods are obvious. Laboratories have taken the place of lecture halls. Practical studies of genuine culture value have superseded the "humanities." Increased attention is being given to industrial needs. Common sense has influenced the professions. Our journals have become largely descriptive — we prefer to seek information through travel, and in coming nearer to nature we come nearer to truth. We have developed a craving for fact, and with this has developed the power of independent judgment on the part of the people at large.

TOO MANY SUBJECTS

BY
ALEX. C. HUMPHREYS
(PRESIDENT OF STEVENS INSTITUTE OF TECHNOLOGY)

I AM not prepared to say what new tendency in educational work is of most value and significance and now needs the most emphasis and encouragement.

I am prepared to state, however, that, in my opinion, our school methods can be amended to advantage toward greater thoroughness in

the fundamentals, for I believe that in the effort to cover many subjects we have drifted toward superficiality.

I am almost prepared to say that the most important change in the curricula of the engineering colleges would be the introduction of a thoroughly practical course in business methods, including broadening instruction of a practical character that would demonstrate to the students before graduation that as engineers it is necessary that they should conform to commercial conditions and limitations

THE LIMITATION OF SUBJECTS

BY

J. M. TAYLOR

(PRESIDENT OF VASSAR COLLEGE)

THE new subject or new method of effort that needs emphasis to-day is, in my opinion, a very old one. So long as the world lasts, and whatever be the progress of the child, the old problem will remain just about the same. We have come to fancy that the vast increase in knowledge in our time should somewhat bear upon the training of the young child, and we have extended the domain of our school life until, in the opinion of a great many of our people who are competent to judge, we are getting only the most superficial results. I am not one of those who believe the whole work of our schools a failure, nor am I pessimistic regarding it. I do think, however, that with the increased pressure that is placed upon our children we are reaping just what we ought to expect to reap. The child's mind has not grown as our knowledge has grown, nor grown, I may add, as our method of pedagogy has grown. We are in danger of forgetting that we are working on the same old material. We have arranged our courses too much with reference to teachers and systems, and too little with regard to the fact that the child is young and ought not to be pushed and if pushed hard in youth will reveal the general results of precocious or overstrained development. I think that we should not be looking for any *special* object in education and that in doing it to the extent we have in this generation we have neglected the far more important point of the training of the individual. In short, it seems to me that the thing most needing emphasis and encouragement to-day is the limitation of what we are demanding of the child, a curriculum based on the capacities of the child rather than on the broadness of modern knowledge, and above all that we refrain from high pressure in our schoolrooms which is bringing superficiality into the whole realm of our education. We are trying to do too many things with the usual result of not doing any one of them well. That is, possibly, even worse than the folly of trying to prepare young people for some specific line which in all probability they will never follow. There was a Norwegian girl employed in an American household, now at this thing and now at that, until her impatient mistress exclaimed, "Nora, is n't there anything you can do?" "Yaas," was the reply, "I can milk a reindeer!" Some of our children are taught things which prove equally useful.

AGRICULTURE FOR RURAL SCHOOLS

BY

JERE M. POUND

(STATE SCHOOL COMMISSIONER OF GEORGIA)

WITH us in this state, a more complete systematization of our educational institutions, the development of state-aided high schools, and the infusion of the agricultural and industrial element in our common schools seem to be the work most needed. This, with a closer and better supervision of rural schools, will give all educational interests a tremendous uplift.

BETTER INDUSTRIAL TRAINING

BY

W. E. STONE

(PRESIDENT OF PURDUE UNIVERSITY)

I AM impressed with the force and logical importance at this time of the movement in favor of industrial education. It is at present somewhat incohernet, but is undoubtedly receiving a good deal of attention, not only from persons connected with educational institutions but, what is quite as significant, from men of business and practical affairs.

Two phases of this movement appear to me specially forceful:

(1) The movement, through the medium of the trade-schools, to prepare a class of boys and girls for greater skill, greater pride, and greater efficiency in trades and handicrafts. This will not necessarily be a part of the existing school system but is likely to find expression in special trade-schools — perhaps like those already so well established in Germany.

(2) The encouragement in rural schools of

training in the knowledge and appreciation of rural affairs, and particularly in agriculture, as one of the fundamental industries. This is most strongly developed at present in the Middle West. I see more of these phases of educational agitation than of others, and I am convinced that they are of great importance.

AS A PART OF SOCIAL PROGRESS

BY
PAUL H. HANUS
(HEAD OF THE DIVISION OF EDUCATION, HARVARD UNIVERSITY)

THE present tendency toward securing industrial education as a part of our public educational system is one of the most important movements of our time. Much interest has been developed in this subject, and some practical steps have been taken toward the realization of a scheme of genuine industrial education for boys and girls over fourteen years of age, and for older persons already employed. The first state to take practical steps toward providing industrial education within its borders is Massachusetts, which established a Commission on Industrial Education two years ago, with the authority to found industrial schools throughout the state in coöperation with single municipalities or combinations of municipalities, the state aiding in the maintenance of such schools as may be established in proportion to the amount paid locally for schools. The state aid is likely to be, in nearly all cities and towns, one-half of the cost of maintenance. The schools to be established are to be independent of the existing schools, in order that the vocational aim of industrial schools may be fundamental and not incidental.

An important educational tendency of to-day is the upward trend of salaries paid to teachers. It has been felt for some time that there are not enough men of the right personal qualities and satisfactory training in the teaching profession. It has also been found that many of the best-equipped women have lately been seeking work outside the teaching profession rather than in it. Meanwhile, the demand for scholarship and technical training on the part of teachers has risen. The consequence is a shortage of teachers of the right sort. Gradually this condition is attaining recognition, and steps are being taken to remedy the serious disadvantages that are apparent.

The tendency to look on the problem of education as a part of a much larger problem, namely, the problem of social progress, is also one of the most important recent developments in the whole field of education. This tendency is especially marked among university professors of education. From it we may expect to derive a much more thoroughgoing study of the efficiency of schools and of the organization and administration of school systems than we have had hitherto. The tendency heretofore has been to regard the study of education as of interest only to prospective teachers. We are now coming to see that, inasmuch as education is an important function of municipalities and of states, it is of vital interest to all thinking men, and especially to all men who are themselves liberally educated.

There is a growing recognition of the necessity for much more thoroughgoing medical inspection of school children than we have had heretofore, and much better care for the health of school children than we have yet realized. The laws recently passed by Massachusetts illustrated this, and some of the Massachusetts cities—notably Brookline—have gone far beyond the requirements of the statute. Also the appointment of school nurses and all that that implies for the physical welfare of the children and of the community in large cities — Boston and New York, for example — is an indication of the same thing. Society is coming to realize that one of our most important resources is the physical vigor and normal physical development of the oncoming generation, as the necessary basis of its intellectual activity, its character, its usefulness, and, hence, of its progressive well-being.

THE LABORATORY METHOD

BY
CAROLINE HAZARD
(PRESIDENT OF WELLESLEY COLLEGE)

IT SEEMS to me that the tendency toward what may be called laboratory methods is the tendency in modern education which needs most encouragement and development.

In Massachusetts we are having a concrete instance of the esteem in which such methods are held in the shape of a bill which is at present before the Legislature for the establishment of a Board of Technical Education. The State Board of Education, which was at the height of its power when Horace Mann was its secretary years ago, has somewhat fallen from its high estate, though it supervises the conduct

of the normal schools of the state, holds educational meetings, and, in general, supervises the public school methods.

Quite a number of persons, however, have felt that the need of technical training has become so great that it should be introduced in the schools in the last preparatory school year, before high school age. This would allow the pupil to choose definitely on arriving at the age of fourteen whether to continue in the public school or to go to a technical school, passing the same number of years in acquiring a technical training as would be passed in a high school.

The same tendency which is recognized in secondary education exists in college work also, to test learning by experiment, not only in distinctly laboratory methods in the sciences, but in the field of sociology and economics, by observation of existing conditions; in the field of the arts, by observation of painting and sculpture and the hearing and analysis of music.

The tendency of the age which needs development and regulation is, broadly speaking, the correlation of learning and life.

A UNIVERSITY OF ALL THE PEOPLE

BY
EDWARD ALSWORTH ROSS
(PROFESSOR OF POLITICAL ECONOMY AT THE UNIVERSITY OF WISCONSIN)

WITHOUT presuming to claim superior importance for it, I am watching with the most interest just now the development of the new university extension in one of the big state universities. Within a year, nearly eight hundred have taken up instruction through correspondence and otherwise. Practising physicians take advantage of the course in immunity and infection to catch up with their art. Young men in banks and offices are fitting themselves to reach the next rungs in the ladder. Study groups are forming in the shops and mills. Alumni are entering the new paths opened up in economics, labor, industrial history, world politics, etc.

The avid seizing of these chances promises a day when the university will enroll as many students out through the state as it gathers on the campus; when its opportunities will lie open to busy men and women as well as to youths; when those with the means to reside at the university will no longer be privileged in respect to the instruction it affords; and when, instead of looking for appreciation and legislative support to the loyalty of its alumni in public careers, the university can count on the affection of thousands of active people who have never shared the academic life.

TO REACH THE NEGLECTED

BY
DAVID C. BARROW
(CHANCELLOR OF THE UNIVERSITY OF GEORGIA)

IN MY opinion the most significant movement in education is the effort, expressed through various channels, to teach each man something which will make him better, to reach and aid the man who has had little or no early opportunity, and to help him to a larger life. It is not intended to make this a substitute for schooling, nor is it expected that it will produce trained thinkers.

The great increase in libraries and the various forms of extension work are illustrations. The benefits to whole sections by teaching improvements in certain agricultural methods show its value.

If this is not education it is at least the work of educators.

TRAINING THAT ADJUSTS

BY
P. P. CLAXTON
(HEAD OF THE DEPARTMENT OF EDUCATION OF THE UNIVERSITY OF TENNESSEE)

THE most significant tendency in modern education is that toward adapting the work of the school to the life of the people. This means education that will, on the one side, develop the moral and social life of the children and make them into good citizens, and, on the other, give them the ability to make an honest living and add something to the common wealth of the country. This last, of course, means the teaching of the principles of physics, chemistry, and biology, and other natural sciences and their practical application on the farm, in the shop, and in the home; it means also the giving of a certain amount of technical skill in some particular industry.

This, of course, is real democracy in education. Education is adjustment and always has been. In the past, only a few boys and girls received education in the schools. These were intended for literary or professional life or for a life of elegant leisure, and the schools of that day were well adapted for that end. Now, all

children are supposed to attend the elementary schools and large numbers attend the high schools, colleges, and universities. If education is still to mean adjustment, the course of study must be varied enough to meet the demands of all classes of children and to prepare them for all kinds of work.

This means, further, that the schools of one section or community will differ in the adjusting part of their curricula from the schools of another section or community. The part of the course intended for general culture and for social and moral development will be practically the same everywhere.

TEACHING ADULTS TO FARM

BY

S. A. KNAPP

(DIRECTOR OF THE FARMERS' COÖPERATIVE DEMONSTRATION WORK OF THE DEPARTMENT OF AGRICULTURE)

THE most important work just at present is to convey to the toiling masses of mankind whatever things of practical value genius has discovered and human experience approved, and the usable knowledge scholars have acquired from any source, and to present them in such a way that they will be accepted.

There should be no limit of age to the acquisition of knowledge and no closing of the doors of opportunity to the toilers on the farms, in the workshops, and in the homes. Every adult individual has a right to know and should be given such useful information as will tend to increase his comforts and add to his happiness. It is admitted that in theory one division of knowledge or one line of instruction is not more important than another, but it may become so because it has been neglected or is more immediately available or more broadly applicable or touches greater sources of influence.

The teaching of adults on the farms, in the workshops, and in the homes of toil is the most valuable and significant of all the varied lines of educational work because it has in the past been the most neglected. It is the most valuable because the lessons are immediately applicable and become at once an investment for human betterment; while much of the teaching of youth is lost by indirection or lack of application. Its value is enhanced because it goes directly to the improvement of home conditions which largely fix the character of adult society and mold the rising generation. Adult education is especially important at this time because increased facilities of transportation have brought the different civilizations of the world into more acute competition, and national supremacy will be the reward of that people which out-thinks and out-works all the others. The education of adults has in it also an element of equity, because adults mainly perform the labor and bear the burdens of the world, and they have a right to some of the direct and immediate benefits from what they create and support. By what law of equity can physics be taught in the public schools to the son of a mechanic, and agriculture to a farmer's boy while the commonwealth declines to make provision for night schools for mechanics or instructions in domestic economy to the weary mother or to convey to the adult toilers on the farms what science has discovered and art devised for their assistance?

It will be difficult, if not impossible, to fix as national characteristics those high standards of excellence worthy of a great people unless education and training be taken to the adult population as well as to the youth. However excellent and complete may be the instruction of youth in the schools, parental authority and home environment, if of a lower level, will ultimately determine the standards of the future. The education of the adult should keep step with that for children and youth, so that there may be a material prosperity and an intellectual growth coördinate with developing childhood, under the guidance of a wise instructor, to the end that the natural leadership of the parent may continue unbroken. For obvious reasons, what is taught to adults should be practical and fully proven by demonstration so as to carry conviction, and it should have a strong personal element in it to promote leadership.

The men of this age are not seeking heroes. The greatest demand to-day in American homes and in all the varied lines of industry and business is for honest, intelligent, and faithful service. Homes are broken up because such service can not be secured, farms are idle and business halts, awaiting the approach of men who know and will faithfully do. It is all a matter of training.

Such effort as is now being made to carry helpful knowledge to the homes, to the farms, and to the workshops is in the line of highest duty and is accomplishing the work of greatest value.

Until the equation of knowledge is better balanced, more of the money and of the energy of the people should be turned in this direction.

MORE MONEY FOR RURAL SCHOOLS

BY
O. J. KERN
(SUPERINTENDENT OF SCHOOLS, WINNEBAGO COUNTY, ROCKFORD, ILL.)

IT IS safe to assume that the country-school interest of the United States is the largest single educational interest in our country and worthy of the most careful consideration of those shaping educational policies. No definite statistics are yet available with reference to the magnitude of this interest. The advance sheets of the Report of the United States Commissioner of Education for the year ending June 30, 1906, make a division by calling all centres with a population of four thousand or more "cities" and all with less than four thousand as "country." Not a very close division but two or three items of comparison will not be amiss here.

FOR SCHOOL YEAR ENDING JUNE 30, 1906

	4,000 OR MORE	PER CENT	LESS THAN 4,000	PER CENT
Enrolment in public day schools	5,441,213	32.7	11,200,757	67.3
Value of school property	$528,993,959	67.6	$254,134,181	32.4
Total expenditure for education	167,522,864	54.4	140,242,095	45.6

The reader is welcome to make such deductions as he pleases. The fundamental consideration is that the farmer *must spend more money on the education of his children and must spend it in a better way to meet the changing conditions of country life.* This proposition is the *sine qua non* in the consideration of any advance in the country-school interest over the United States. It is the duty of educational leaders to demonstrate to farmers that a new educational ideal must obtain and that the increase of expenditure will pay.

AN UPLIFTING NEGRO COÖPERATIVE SOCIETY

THE FARMERS' IMPROVEMENT SOCIETY OF TEXAS WHICH IS SUBSTITUTING AMONG THE NEGROES ORDER AND PROSPERITY FOR SHIFTLESSNESS AND POVERTY

BY
R. L. SMITH
GRAND PRESIDENT OF THE FARMERS' IMPROVEMENT SOCIETY OF TEXAS

IN THE summer of 1889 I read a very brief article in the *Youth's Companion* descriptive of the work of the village improvement societies in Litchfield, Conn., and South Framingham, Mass. It came as an inspiration. "For," said I, "if these people, representing the highest type of American civilization with generations of culture behind them, have any need for special work along æsthetic lines, how much more necessary is a work of this kind among Negroes, who lack any hereditary tendency to efforts of this sort!" At that time I was a teacher in a rural school in Colorado County, Texas. The village where I lived was nine miles from the nearest railroad station, a hamlet of some two or three hundred people, called Oakland, on the Southern Pacific Railway.

There was only one home occupied by Negroes that had more than two rooms, and the general appearance of the buildings and highways was exceedingly uninviting. The Negroes lived on one side of the village and their settlement was called Freedmantown, a term of general designation of Negro quarters.

THE VILLAGE IMPROVEMENT SOCIETY

In December, 1889, after talking the matter over with a few good men and securing their approval, at the close of a fervent appeal to the people in a general mass-meeting at which almost the entire Negro population of the place was present, I organized the Village Improvement Society of Oakland, Texas. I tried in this meeting to show them that the time had come when we must wipe out, in so far as we could, the ear-marks of the race from the civic landscape: dilapidated dwellings, broken win-

dow-panes stuffed with pillows and rags, unkempt yards, and front fences made of barbed wire loosely strung on crazy posts. These front fences were utilized on wash days as clothes-lines, and regularly, once a week, tattered garments and rags emphasized the lack of order and of thrift that obtained among their owners. I wrote out a constitution which bound the members to do everything in their power to improve the conditions of their homes and the appearance of the village.

Monthly meetings were held, and during the winter and spring a good beginning was made. Front fences were straightened, some yards planted with roses, common flowers, and arbor-vitæ, and much improvement was made by transplanting wild flowers from the prairies and planting trees in the streets. The streets were also leveled. Altogether a fair start was made.

THE HINDRANCE OF POVERTY

We had not yet begun on the improvement of our homes because we lacked the money, and we all felt that if the crops of 1890 were good there would be a general step in that direction. All that summer I felt that the future was big with hope and that the transformation soon to be effected would make our little village a prettier and better place to live in. During the fall I was constantly urging our members to fix up their cabins, add more rooms, and carry out the pledges that they made when they joined the association. But when all the cotton was sold there remained very little in anyone's pockets to spend on improvements. This failure led me to inquire into the causes of the general poverty, and I found it in the method that prevailed among farmers, then and now, of carrying on their business. The credit or mortgage system absorbed the entire crop, and a man was considered quite fortunate if he "came out even" at the end of the year. Most of our people carried on their farming in this way and it is a wonder to me that they managed to pay for the lots that they had bought and the cabins that they had erected upon them. I saw readily that so long as they operated under the credit system no "village improvement" was possible and that what the Negro farmers of Texas and of the South really needed was not, at this stage, a Village Improvement Society but a Farmers' Improvement Society. So, calling a meeting, I revised the constitution, inserting clauses aiming to abolish the credit system by raising or purchasing for cash all necessary supplies, and to encourage in all ways an intelligent interest in farming and an economical and efficient conduct of that and all other business.

The bane of the Negro farmers of the South is the credit system. Belonging to a race altogether unused to business methods and not at all acquainted with market prices, their exploitation was a simple matter. I had to find a better system of getting supplies than by running an account. Our first coöperative efforts were exceedingly simple. They were confined to getting our members to purchase at wholesale the supplies that they needed, in so far as their means would allow.

COÖPERATION INSTEAD OF CREDIT

Some by economy had succeeded in saving a few dollars, and at a meeting called for that purpose we made up a fund, taxing each head of a family twenty-five cents for railroad fare, and two of us went down to Houston, our nearest wholesale centre, to spend about a hundred dollars. This was the era of cheap prices and the amount of flour and sugar, coffee and beans, soda, baking powder, and other articles that we bought for a hundred dollars was the greatest object lesson in money-saving that the Negroes of that community ever had. Many of them had raised enough meat and corn to suffice them for the year, and the purchase of such other articles as I have named made them almost independent.

To illustrate the difference between the credit system and the coöperative plan above mentioned, my brother-in-law had a jug holding two gallons of molasses which he sent up regularly to the village store to be filled. This cost him at that time seventy cents a gallon. Under the coöperative system he had the jug filled with the identical molasses for forty cents, to which five cents per gallon should be added for freight.

Later, in Austin, I bought about two hundred pounds of sugar for six dollars and sixty-five cents. Sugar was remarkably cheap that year and, never having heard of any sugar at such a price, I emptied my trunk and filled it and got it home by the friendly aid of train porters and baggage men along the route, though at one change a trail of white betrayed the contents. I had to own up, but it was regarded as a good joke. When I got home,

just for curiosity, I went up to one of the stores and asked the price of sugar. "Credit or cash?" was the query. "On credit," I replied. "Fourteen pounds for a dollar," was the answer, at which price my six dollars and sixty-five cents would have bought ninety-one and one-tenth pounds instead of two hundred. I began to realize that practically the Negro race had merely exchanged one form of slavery for another so far as the acquisition of wealth was concerned, and I had found that wealth honestly earned and wisely expended was as absolutely essential to the elevation of a race as were schoolhouses and churches.

THE WOMAN'S BARNYARD AUXILIARY

Then, too, another source of income overlooked by my people appealed to me as worth the effort to develop. It was the egg, poultry, and butter industry and, knowing that the men were indifferent to such little things as eggs and a few chickens or a pound or two of butter, I got up a special organization of women and named it the Woman's Barnyard Auxiliary of the Farmers' Improvement Society of Texas. Thus organized and encouraged, some of the women made enough money to run their homes.

With these changes and by constant encouragement we are in a fair way to realize our hopes of village improvement, for the good work has gone on in full swing. In six years the external aspect of Freedmantown was changed. A church was built at a cost of a thousand dollars when both lumber and labor were cheaper by far than they are at present. A two-story schoolhouse was erected, then as now the best rural school building in the county. The shanties gave way to three, four, and five-roomed painted houses with neat yards enclosed with palings. Inside of them, neatness was the order; the children were better educated and the demand for teachers from our community was far greater than the supply.

All this had an interesting effect upon the white people. In the summer of 1895 the Republican convention of Colorado County nominated me as their candidate for the legislature. I made a canvass, addressing people of both races, and much to my surprise was elected. Since it was entirely in the power of the white people to defeat me, the county having a majority of white voters, and since many white people were kind enough *to* say that a man who felt such an interest in upbuilding his own people should be approved in some way by the whites, I felt that the race problem was solved sure enough. I accepted invitations to address my people in many different communities and began extending the work of the society.

THE FIRST ASSEMBLY

In 1896 I called the first delegated assembly of the movement. I had to be very careful in giving this annual meeting a name, for the masses of my race in Texas are divided into two camps, religiously speaking — Methodists and Baptists — and they used to be jealous of each other. If I called this anuual gathering a conference, this term, having a Methodist savor, might frighten away the Baptists; and, by the same token, if I called it a convention the Methodists might look on the whole thing as a trap. So I borrowed boldly from the Episcopal Church, and called the meeting an Annual Convocation. This allayed all suspicion, and settled for all time any distrust that might hinder the work.

At our first meeting we adopted a form of report which gave us the information we needed as to the actual progress made by our members on the things that brought us together as an organization.

We adapted the nomenclature and forms of fraternal organizations to our use, and issued degrees to those who followed the rules of the society.

These degrees were twelve in number, and they indicated the progress that the member had made in ridding himself of debt and making progress in civilization.

The first degree was conferred upon the member who succeeded in "running" himself three months without opening an account. The second upon the member running himself six months; the third nine months, and the fourth twelve months; the fifth was conferred upon members who maintained themselves the entire year, and had a surplus of twenty-five dollars; the sixth the same with a surplus of a hundred dollars; the seventh the same with a surplus of one hundred and fifty dollars; the eight with a surplus of two hundred dollars; and so on up to the twelfth degree, which was called the Grand Patriarch degree and entitled its possessor to membership in the annual convocation without election, thereby creating a permanent delegateship of successful members who had worked out their own salvation and

were actually fitted for leadership by growth in the essentials of civilization.

The first four degrees were grouped together under the head of "Coming Degrees" which simply meant that their possessors were on the road to independence and would "get there" some day if they kept on. The next four were grouped under the general head of the "P. L. Degrees," by which is meant "Possible and Probable Landowners," the way being clearly opened to securing homes if desired.

After the first convocation at which a branch was represented, no member was eligible to be a delegate unless he had passed up a degree.

By these simple means and the adaptation of the lodge system, with which the race is familiar, a lever was secured that made the plan workable and at the same time gave to the movement the fraternal spirit absolutely essential as a means of getting hold of the people.

As I have stated before, I have been encouraged in this work by my white neighbors and the press of my state. When suddenly elevated to represent my county in the 24th legislature, the *Houston Post*, the leading Democratic paper of South Texas, was kind enough to say this of me:

> Oakland, Texas, November 14. — Professor R. L. Smith, the recently elected representative of Colorado County to the next legislature, is a colored man and is one of the two Negroes elected to so honorable a position in Texas. It would be hard for the colored people of Texas to find a member of their race better qualified to influence legislation in their behalf than the present representative. Born in South Carolina in 1861, largely by his own efforts he has secured an education second, perhaps, to no man of his color in the state, and as an instructor, his reputation is deservedly high all over the state.
>
> At home he has the confidence and respect of all classes, irrespective of race, being a man of broad and liberal views, of great self-respect and agreeable address. He came to this state in 1885 and has resided continuously at Oakland. Here he has completely transformed the character of the Negro settlement, and to-day it is doubtful if in the whole state there is a more valuable class to the population of any town than these. Here there are thrifty, enterprising, law-abiding, intelligent and moral Negroes — Negroes who are the possessors of homes and public buildings, and to no man is more credit due than to Professor Smith who has ever held himself in readiness with his time, talent, and money to keep abreast with the strides of civilization, prosperity and modern progress. It is hoped now that opportunity is given him that work of this kind will be undertaken by others.

In the next election I was reëlected by a majority twice as great as before and I naturally felt that the increased majority and endorsement of my legislative career was due to my efforts to better the condition of my race, as well as to the earnest, thoughtful, and prayerful consideration which I gave to all the problems arising in the legislature.

Later, our society began to get hold of the people *en masse*, largely through annual fairs, the seat of these gatherings being Columbus, the county seat of Colorado County.

We had none but the finest and most practical speakers and all denominational and political subjects were barred. Dr. Booker Washington, Bishop Grant, Mr. H. T. Kealing, a gifted speaker and writer, are representative of the men we invited to address us, and such colored men, together with the able array of white speakers always at our disposal, made these meetings memorable and exceedingly useful.

INFLUENCE OF BOOKER WASHINGTON

Before our first annual convention I went to Tuskegee and came into contact with Dr. Booker Washington and saw what a master of men he was in his rude parliament, the Negro Farmers' Conference. He was very kind and sympathetic; he had the keenest eye for shams and considered nothing worth hearing in the conference unless it was both practical and helpful. It was the most picturesque assembly I had ever seen. There was the native Negro wit, absolutely unapproachable by any other race. Then there was the pathos — those submerged types, fresh from slavery, blindly struggling into the dim beginnings of something better in their lives, guided by the wise, patient, masterly hand of the great leader. As I recall, they were led to tell how they got their forty acres, how they added a month to their exceedingly short school terms, how they raised hogs. They were asked about the moral character of their teachers and ministers, about loafing on Saturdays in town, about going to courthouses to see trials in which they were neither defendants, witnesses, nor even remotely interested. The masterpieces were the stories of those steady-going, level-headed fellows that had bought their farms, improved them,

raised good stock, and were educating their children. These were the pillars of Booker Washington's church for the masses. He was an uncompromising and relentless enemy to the one-room log cabin.

FOUNDING AN AGRICULTURAL COLLEGE

It was after this first meeting in 1897 that I resolved that the thing our Farmers' Improvement Society should do for the farming Negro of Texas was to emphasize the training of our youth in agricultural schools, and to meet the needs of the race in Texas we needed about twenty of them.

These schools should be practical rather than scientific, and should be normal agricultural institutions. That is, a good deal of the teaching should be by observing good methods and seeing actual results accomplished.

It was a long wait from the time of forming this purpose and the passage of the resolution committing the membership to this course, to the actual founding of our first school.

We did not grow strong enough to attempt it until 1906, when we had accumulated about twelve hundred dollars. This was spent for fifty-eight acres of very poor land in Fannin County, Texas. Twenty dollars per acre for poor land seems fabulous but, while the tract we bought was sandy, it was in the midst of the famous black lands of North Texas and this was before the cotton boll weevil had invaded that country and good land was selling at from forty to one hundred dollars per acre.

The purpose of this agricultural college is threefold:

First: To give the student a practical training in correct methods of farming. Second: To give him a good, well-trained mind by pursuing a fair course of instruction at least as far advanced as the high school. Third: To train him up to true family life where habits of order, system, and thoroughness prevail.

The family life of the Negro needs reconstruction. Even where there is no taint of moral looseness, there is lack of order and perhaps of fixed purpose. To be neat and careful, to be orderly and systematic, to be patient and persistent, these are more valuable than to be able to extract a cube root or to demonstrate propositions in geometry. We do not have, therefore, and will not have, large and imposing buildings, but small ones in which students are grouped in families under the immediate eye and care of the best teachers that we can get. The practices that should be in every home we insist upon in these school homes. System, order, industry, and consideration for the rights and preferences of the other members of the family. Whenever I visit our humble school, situated four miles from the town of Ladonia, my heart swells with joy to see the influence that this training has exerted upon the children of the freedman.

The progress of the movement may be gaged by the report of the Grand Secretary summarizing the reports made by branches at the Twelfth Annual Convocation held at Marlin, Texas, October 3, 4, and 5, 1907.

The number of organized groups was..	475
Number of members.....	9,256
Number of acres owned by members..	71,439
Value of the same at $15 per acre.....	$1,071,585
Value of cattle, horses, mules, etc., owned by members.....	$275,000
Value of improvements made October, 1906 to October, 1907.....	$58,148

The amount spent in coöperation was more than fifty thousand dollars.

The Negro problem so far as the Negro himself is concerned is to teach him *how to live;* how to take hold of the things that are about him and use them, so that, in that which makes for better citizenship, to-morrow will find him more advanced than to-day. It is that he may take the soil and the sunshine, the rain and the snow, fair weather and foul, the great institutions upon which civilization rests — the family, the church, and the science of government — and turn them to his own account, beginning with whatever he finds at hand — the axe, the hoe, the plow, the tool of the mechanic, the pot, the scrubbing brush, as well as the pen and the sword, and work out for himself a place in the best thought and life of the republic.

This the Farmers' Improvement Society is trying to do.

It is a school for those simpler virtues of hard and well directed industry, for economy and thrift, for foresight, for coöperation, the mighty tool of weaklings, for the home, its founding, its beautifying, and its highest use.

It has done very little, but its aims are those upon which the hope of the Negro's future rests.

Others will carry it on to a larger success.

SPANISH-AMERICAN WAR TENT

ALLAHABAD, INDIA

THE Y. M. C. A. AROUND THE WORLD

THE OVER-SEAS EXTENSION OF AN INFLUENCE WHOSE UPLIFT HAS BEEN FELT IN EVERY AMERICAN CITY

BY

EDGAR ALLEN FORBES

THE reclamation and uplift of the men of to-morrow — spirit, mind, and body — is the broad platform upon which the Young Men's Christian Association of the world stands. It looks out for the life that now is, perhaps even more than for that which is to come. This and the further fact that its work is not done by ministers but by the young men themselves has given it a permanent place among American institutions for the uplift of life.

Though English in its origin, its greatest growth has taken place in the United States and Canada, and its most remarkable work around the world is distinctively American. Nearly all of its foreign activities originated here; most of its foreign secretaries are Americans or Canadians; and nearly all of the money not contributed by the foreign cities themselves, was raised in the United States. This article, therefore, has a right to link itself to the two "Around-the-World" stories of American achievement that have preceded it, and to any that may follow, for it deals with the Association as an American rather than as a religious institution.

In following the Young Men's Christian Association across the map, we may pass the organizations in English, German, and other European cities, for they are really local work and do not come within the International Committee's sphere. The extension throughout

BUILDING AT MADRAS, INDIA

SECRETARY'S OFFICE, SHANGHAI, CHINA

THE LUNCH ROOM

THE DORMITORY

THE CLUB HOUSE WHERE THE SAN FRANCISCO Y. M. C. A. WELCOMED THE SAILORS HOME

North America may be dismissed with a few broad facts. It has, in its 2,012 Associations in this country, an enrolment equal to seven times the enlisted force of the United States Army; the total attendance at its buildings in one year equals one-half of the total population of North America, and the yearly attendance at its religious meetings and Bible classes would fill 15,000 churches. More than one in every four college students are on its rolls; its railroad department is the second largest religious brotherhood in the world;

THE RIO DE JANEIRO ASSOCIATION'S GREETING TO THE GREAT FLEET

Admiral Evans's Chief-of-Staff reported that "the establishment was always crowded and was the busiest place in the city while the men were ashore"

WRITING TO THE FOLKS
A battleship can offer the enlisted man no conveniences like these

AN "OVERFLOW" FROM THE DORMITORY
These sailors have money to pay for beds, but they prefer the floor

in its educational institutes are eight times as many students as in the largest university in America; its buildings would solidly fill one hundred city blocks; its summer camps would make a showing as large as the National Guard encampment of ten states. This is the working force and equipment of the organization that is chiefly responsible for the extension of its work among the young men of non-Christian lands.

The executive direction of this great force is vested in the International Committee, located in New York City, which is conceded to be one of the most efficient business organizations in the world. In all its foreign work this central board seems to be guided by certain principles which may be regarded as fundamental:

(1) It never enters a non-Christian city without a unanimous invitation from the missionary societies there at work.

(2) In locating its first stations, a traveling secretary first makes a careful inspection of the field and designates the great strategic points at which young men are concentrated.

(3) Its earliest efforts are directed toward establishing "points of contact" with men and disarming their prejudices by giving them material advantages that they can find nowhere else.

(4) The work is limited to one city until that first Association is thoroughly entrenched

A GOSPEL SERVICE ON THE U. S. S. "MAINE"

IN THE BROOKLYN NAVAL BUILDING

A Y. M. C. A. COMBINATION OF RELIGION AND COMMON SENSE

A GOSPEL MEETING AT FORT LEAVENWORTH

A BALL-TEAM AT JAMESTOWN

and is a true model for the other cities to imitate. Young Men's Christian Associations are practically identical around the globe.

(5) A substantial building is erected as soon as possible, about half of the money being contributed through the American committee.

(6) The Association is usually dignified in the eyes of the native young men by securing as its officers Christian men of influence in the community.

(7) All the current expenses of a foreign Association must be raised on the field.

A SQUAD OF FILIPINO SCOUTS AND CONSTABULARY
Most of these are members of the Young Men's Christian Association

(8) The foreign secretary in charge is replaced by a native secretary as soon as an efficient man can be secured and trained. (The "secretary" corresponds to the "general manager" of a business concern.)

(9) National committees are created and made increasingly responsible for the administration and extension of the movement in the several countries.

All in all, there are now more than three hundred Associations in non-Christian lands,

AFTER THE SAN FRANCISCO DISASTER

The Y. M. C. A. tent was on the ground almost as soon as the Army

about half of them being in colleges. There are more than seventy-five paid foreign secretaries, all but seventeen being located in the far East.

THE STRATEGIC POINTS IN JAPAN

The most diversified example of Young Men's Christian Association work in a non-Christian land is furnished by Japan, where one strategic point after another has been captured within the last twenty years. Tokyo was the first, for Tokyo is the largest student-centre in the world. Not counting foreigners,

JAPANESE SECRETARIES OF THE Y. M. C. A. LEAVING FOR MUKDEN

Thirty-six men were at the front during the war

it has 100,000 Japanese students within its limits. The extent of the Association's influence may be inferred from the fact that among its presidents have been a Chief Justice, an Admiral, and a Speaker of the Lower House. The present head of the work is Mr. Ebara, the House leader of the Constitutional party of Japan.

Kyoto, a city of 400,000, is another centre, and is being well fortified by a building for

DURING THE BOXER OUTBREAK

A Y. M. C. A. secretary went with the troops from Manila to Peking

A GATHERING OF MEN IN CHINA

A Dragon procession in the Business Man's Carnival at Hongkong, one of the strategic points in China

which Mr. Wanamaker is giving $30,000. It is an interesting fact that an address delivered by Mr. John R. Mott, of the International Committee, was the first instance in this ancient capital that an evangelistic message was permitted in a public hall.

A CHECK TO THE Y. M. C. A. FROM THE VICEROY OF KWANTUNG

Osaka has been occupied because it is the Manchester of the Far East. In the enclosure of a single cotton-mill, a force of 4,000 employees is at work. The native secretary of the Osaka Association is a graduate of the Imperial University and a former professor in the city's leading college.

A Y. M. C. A. SECRETARY AND HIS FAMILY

Mr. and Mrs. Li are both at work among the Chinese students in Tokyo

A Y. M. C. A TREASURER WITH HIS SUBSCRIPTION BOOK

All the current expenses of the foreign Associations are raised in the field.

CHINESE DELEGATES TO THE GREAT STUDENT CONFERENCE AT TOKYO

Nearly every one is a man of consequence in China

A GROUP OF REPRESENTATIVE Y. M. C. A. WORKERS IN CHINA

At the general convention of the Young Men's Christian Associations of China in March 1907, there were 363 delegates, representing twelve provinces

AN EDUCATIONAL CLASS AT THE HONGKONG YOUNG MEN'S CHRISTIAN ASSOCIATION

A MEMBER OF THE BOY'S BRANCH, CANTON

The vast army of ship-building employees at Nagasaki marked it as another strategic point, for the Mitsui Company alone has 9,000 men. Shipping was also the attraction at Kobé, through whose harbor passes one-third of the tonnage of the Empire.

In all these centres, the "points of contact" with Japanese young men have been established largely through educational classes and hostels. The educational work won the confidence of the officials to the extent that the Association secretaries have been requested to take in hand the nomination of the American college graduates that are to teach English in the Government school. Hostels, which are needed in Japan more than anywhere else, are simply high-class boarding-houses where students and other young men are provided at a small cost with a clean, attractive home-life, in a wholesome atmosphere. The sum

SECRETARY TAFT DEDICATING THE Y. M. C. A. BUILDING AT SHANGHAI

This was his first public act after landing

THE READING ROOM OF THE MANILA ASSOCIATION

THE "BOOSTERS'" PARADE AT MANILA

of $50,000, which was secured in America, will erect about fifteen of these student-homes, and they will then be self-supporting. The administration of all this work has been left largely to the Japanese. The president of the national committee, Mr. Honda, has recently been elected Bishop of the United Methodist Church of Japan. He is the first native bishop in the Far East, and will therefore be associated in mind with Crowther, the first in Africa.

The Japanese Empire has also been the scene of three specialized forms of Association work of far-reaching consequences. The first of these was its generous efforts in behalf of the Japanese army in Manchuria. At the outbreak of the war, its secretaries in Japan were authorized to go at once to the front, and an energetic young man from Indiana — with the appropriate name of Helm — remained in Tokyo and directed the campaign. The Government was fortunately so busy that it could not do more than temporarily obstruct this work with red-tape, for the results — told in bare figures — were these: thirty-six secretaries in service; three million pieces

AN ARMY AND NAVY SECRETARY, WITH HIS WIFE, STARTING ON A TOUR OF THE POSTS ON THE YUKON RIVER, ALASKA

A Y. M. C. A. SUMMER SCHOOL IN JAPAN

Y. M. C. A. SECRETARIES WHO WORK AMONG CHINESE STUDENTS IN TOKYO
Each man comes from a different province of China

THE 1907 TRIENNIAL CONVENTION OF THE YOUNG MEN'S CHRISTIAN ASSOCIATIONS OF INDIA, BURMA, AND CEYLON

of stationery distributed; one and one-half million visits of soldiers at Association headquarters; 300,000 received some form of personal assistance. The results were shown in another way when Field-Marshal Oyama received the executive secretaries in his field-headquarters and told them that they had rendered to Japan the greatest service it had received from America since Commodore Perry broke open the sea-gates. The Chief-of-Staff, Baron Kodama, favored a permanent Army Association, saying that he had been puzzled for a long time to find some adequate means of moral restraint for soldiers, and had not found it until he saw the work of the army Young Men's Christian Association.

It was this same Helm who turned over a piece of finished work in Tokyo last April and went to Kobé to conduct its building campaign. After six months of arduous labor, he died of pleurisy — the first foreign secretary lost by the Association in its twenty years of work.

Another specialized effort among the Japanese is the growing railroad branch at Dalny. This is an outcropping of the army campaign. When the Treaty of Portsmouth hushed the war-drums, there were 750,000 Japanese soldiers in Manchuria to be moved to the coast over a single line of railroad. There were three points of entrainment and two ports of embarkation; and the Government invited the Association to establish "points of contact" at all of these. After

A MERRY-GO-ROUND FOR RAILROAD MEN'S CHILDREN IN INDIA

THE SECRETARIES OF THE MADRAS ASSOCIATION
England, Wales, Denmark, America, and India are represented

A CLASS IN CARPENTRY IN THE SEOUL YOUNG MEN'S CHRISTIAN ASSOCIATION

THE SUBSCRIPTION OF THE CROWN PRINCE OF KOREA TO THE Y. M. C. A. BUILDING

the troops were gone, the city of Dalny offered the Association a site for a permanent home, and Baron Goto, of the South Manchuria Railroad, heartily coöperated. A building is now being sought for Dalny, which is to be one of the great ports of Asia, and another branch will be located at the northern terminus of the railroad. The eyes of the leaders are also fixed on a division point near Seoul.

A third and novel feature of the Japanese work is the effort to reach the army of Chinese students studying in Tokyo. This is the greatest student migration that history has any record of. Ten years ago the Chinese Government sent two young men to Tokyo; in 1903 there were 500, in 1906 there were 13,000. These young men averaged twenty-three years of age, and came from the best families of China. They represented every province in the Empire; from Szechwan, "which stands at the gates of Thibet," came 600; from Hunan, the last province which admitted missionaries and which opposed the telegraph a decade ago, there were 1,250.

It was a turning-point in the lives of many of the men who will rule China in the coming generation. They were casting off the bonds that held them to an ancient past and were pouring into a city where vice is most alluring. Coming from a land where woman is kept in seclusion, they landed in a city where girls were their comrades, and where the standard of virtue is shamefully low. There were plenty of Japanese pitfalls set for their

A Y. M. C. A. FOOTBALL TEAM IN KOREA

ONE OF THE TWO BRANCHES OF THE ASSOCIATION IN THE CITY OF MEXICO

THE READING-ROOM IN BUENOS AIRES. A NEW ASSOCIATION BUILDING IS UNDER CONSTRUCTION

feet, outside of the brothels that yawned all about them. One of the Tokyo papers published the announcement of a new school for Chinese students where instruction was to be given by "young and handsome female teachers," so that "instruction for the mind and pleasure for the eye may be combined." All the conditions of life were vastly different from the environment of the first generation of Japanese students that came to America and found their way into Christian homes, There were also intellectual perils, for many of these students were immature and imagined that Western civilization could be put on as easily as a derby hat and a Prince Albert coat.

A traveling Association man looked over Tokyo in 1905, saw the dangers that beset these young men crowded into a district three miles in diameter, and sounded an alarm. Christian workers were summoned from China and Korea, and two strong Associations were established in 1906. The campaign was pushed the next year and received great impetus from the conference of the World's Student Federation, which met in Tokyo. This great meeting of Christian college men from all parts of the world made a profound impression upon both Japanese and Chinese. A Tokyo editor called it "one of the most memorable events this country has witnessed in the course of its foreign intercourse." The student movement is now in full swing, with the hearty endorsement of the officials. Consul-

A SOCIAL EVENING AT THE HAVANA YOUNG MEN'S CHRISTIAN ASSOCIATION

Latin-Americans have been much impressed with the Association's mingling of religion with athletics and entertainment

BRITISH SAILORS FROM PRINCE LOUIS'S SQUADRON

FRENCH SAILORS FROM THE "DESAIX"

THE BROOKLYN NAVAL ASSOCIATION EXTENDING "HANDS ACROSS THE SEA"

General Woo, China's representative in Tokyo, made a personal canvass for subscriptions, though he is himself not a Christian.

THE YOUNG MEN OF KOREA

Though Korea is now essentially a Japanese province, the Association's work was established in Seoul under the old régime, so firmly established that it has been called the most useful and influential institution in Seoul outside of the Government. It has now under construction a handsome building, to which Mr. Wanamaker gave $40,000 and the Crown-prince of Korea $5,000. When Mr. Mott visited this capital, his addresses were heard by 6,000 persons in two meetings, and 3,000 students attended the services on the "Day of Prayer." Mr. Megata, "Financial Adviser to the Korean Government," has assured the Association's secretary that he will give positions to all the young men that its educational classes can train in bookkeeping, and the Government — "by the permission of Prince Ito" — contributes $5,000 a year to

THE ARMY AND NAVY ASSOCIATION IN PEKING

Only three — British, German, American — of the ten nationalities that guard the legations are shown in the picture

the current expenses. A recent report from the secretary announced a football game that was to be played by "The Hair-Cuts" vs. "The Top-Knots." The kick-off was made by the Secretary of the Imperial Cabinet, an old Confucian scholar of the dignified type

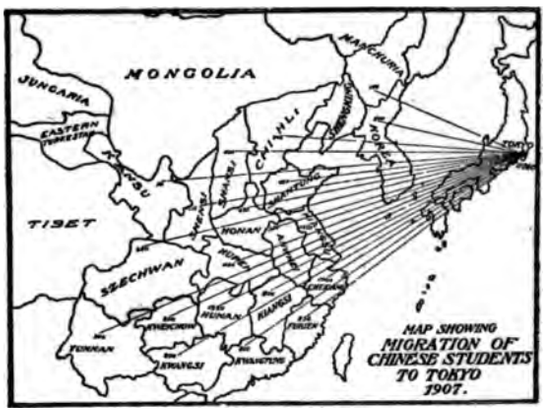
"POINTS OF CONTACT" WITH THE CHINESE

A general convention of the Young Men's Christian Associations of China met at Shanghai in March, 1907, with 363 delegates, representing twelve provinces of China proper, Manchuria, and Korea. They came from nine city associations, twenty-one student organizations in Christian colleges, and one Government college. All of the convention's officers were Orientals and only two foreigners made addresses. Tuan Fang, one of the three great Viceroys of the Empire, sent his personal representative.

The Association in Peking is virtually a Princeton institution. The three secretaries in charge are all Princeton men, and the work is supported by contributions from that university. In this city there is also an Army and Navy branch for the 1,500 marines and soldiers of the Legation Guards, representing ten nationalities.

Shanghai has the model foreign Association building of the world, the cost of which was about $100,000. It was dedicated by Secretary Taft on his recent tour of the East, and Viceroy Tuan Fang's personal representative was again on hand, this time with a contribution of $750. Sir Robert Hart gave $1,000 and words of strong praise. The building is located at a point which 25,000 persons pass daily, and its departments are in charge of three foreign and six Chinese secretaries. Its board of directors is made up of men wielding great influence in this commercial metropolis. In many respects, the Association represents the personal work of Mr. Robert E. Lewis, who has returned to the United States after ten years of service and is now the state secretary for Ohio.

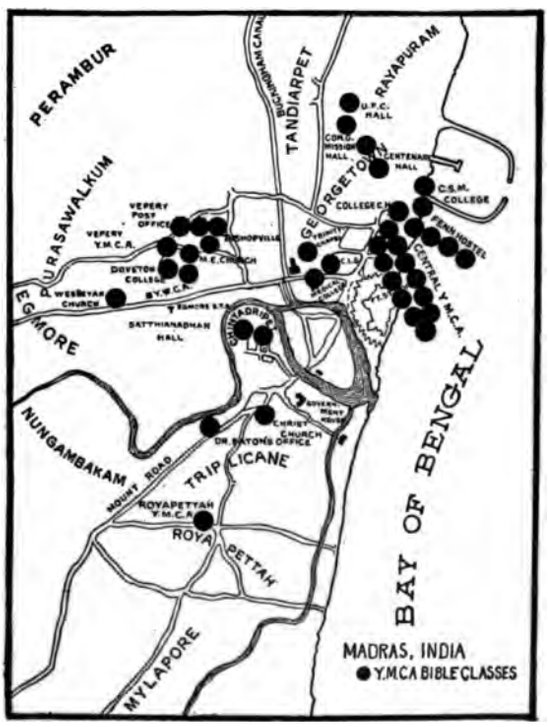
Hankow, 600 miles up the Yangtse, is another centre. It is really a triune city, made up of Hankow proper, Hanyang, and Wuchang, the combined population reaching two millions. Hankow is the centre from which the domestic commerce of China radiates; Hanyang is an industrial city, with 3,500 men in its great iron-works; Wuchang is the capital of the important province of Hupeh.



THE GREATEST STUDENT MIGRATION IN HISTORY

There is also a strong Association in Tientsin, which has 750,000 people. The three representatives sent from China to the international meeting of naval surgeons, held in Detroit two years ago, were all members of the Tientsin Association.

The most distant post yet occupied is Chentu, a city of 600,000 inhabitants, six weeks' journey from Shanghai. For forty miles in every direction from Chentu, the country is so thickly settled that it is really one huge village. Two American secretaries



THE WORK AMONG THE YOUNG MEN OF MADRAS

are located here. Foochow, which has 800,000, was organized last year. There are Associations in the ports of Hong Kong and Canton, also.

The work which the Association is doing in China has the good fortune to be endorsed by such diverse critics as the Viceroys and the missionaries. The Shanghai Centenary Conference of 500 missionaries commended it most highly; the Martyrs' Memorial Committee in north China turned over their fund to erect the auditorium of the Shanghai building; and the $100,000 fund being raised in south China for a memorial to Robert Morrison the pioneer missionary to China — is to be used for an Association building at Canton.

THE YOUNG MEN OF INDIA

There are more than one hundred Young Men's Christian Associations in India, a vast empire with 180 colleges, excluding the universities at Calcutta, Madras, Bombay, Lahore, and Allahabad. Yet only 12 per cent. of the male population can read. Fourteen secretaries represent the International Committee's work, but there are also British Associations in Bombay, Rangoon, and Lahore. The chairman of the National Council for India is Rajah Sir Harnam Singh.

The most important centre of American activity is Calcutta, the second city of the British Empire. It has more than a million inhabitants, two-thirds of whom are young men, and is the largest student centre in India. It has more students in its colleges than are in Harvard, Yale, Princeton, and Chicago combined, and there are 17,000 boys in its high schools. Calcutta is also the home of thousands of Europeans and scores of wealthy rajahs.

The Association has ten secretaries working in eight branches, its president being Sir Andrew Fraser, Governor of Bengal, who rules over as many people as live in the United States. The Anglo-Saxon branch has a building worth $100,000, and Mr. Wanamaker has here erected the first building in mission lands for a boys' branch.

There are other Associations in the "strategic points" of Madras, Bangalore, Allahabad, Secunderabad, and Jamalpur. The last-named is the centre of an important work for railroad men. Mr. F. J. Michel, a young man from Louisville, was sent to India in 1904 by the railroad men of the United States, and has strongly entrenched his work on the East India Railway, 225 miles northwest of Calcutta.

On the island of Ceylon, a building has been erected at Colombo, the commercial centre and a place of great activity. In January of the present year, a secretary sailed from New York for Colombo, whose future field of labor is to be Jerusalem.

THE ASSOCIATION IN LATIN-AMERICA

All the countries to the south of us render spiritual allegiance to Rome, and the Young Men's Christian Association has had a long, hard pull. In spite of the emphasis which it places on Bible study and Gospel meetings, the fact that it associates religion with athletics and entertainments has greatly commended it in a land where it has always been connected only with ecclesiasticism. The Association is, therefore, coming to be a half-way house for the non-religious liberals on their way back from agnosticism to faith.

The City of Mexico has two branches and is erecting a handsome building. One of the largest subscribers was Mr. Limantour, the Secretary of the Treasury. That it has the support of many influential men is shown by the following extract from a secretary's letter, referring to his board of directors:

> "The following members have sent in word that they will be present: the Vice-President of Mexico, the president of the largest banking house in Mexico, one Cabinet Minister, one Senator, the Governor of the Federal District, the Inspector-General of Gendarmerie, and one Representative."

There are also Associations in Monterey and Chihuahua.

The Brazilian sentiment is less favorable, but Rio de Janeiro has a building, in charge of Mr. Myron A. Clark, whose efficiency was so signally shown in the welcome which Rio gave to Admiral Evans's men. There are other organizations at Sao Paulo and Pernambuco.

Buenos Aires — which has nearly a million people, with 15,000 speaking English, "more Spaniards than Madrid, and more Italians than Rome" — is erecting an Association building on a conspicuous site. One of the members of the building committee is Señor Drago, the author of "The Drago Doctrine."

The Havana Association was organized in 1904, and the President of Cuba was one of the

first to become a member. The four Government club-houses in the Canal Zone have been turned over to twelve Association secretaries, and these are keeping that great camp of young men away from home from degenerating into a cesspool of corruption. The Secretary of War not only believes in the work itself, but he has great admiration for the executive ability that directs it.

THE YOUNG MEN OF MANILA

Though the "Y. M. C. A." sign appeared on a large tent immediately after the capitulation of Manila, a suitable building was not provided until recently. When Mr. Mott made a tour of reconnaissance, he found in Manila 3,000 young men outside of the Army and the Filipinos. Of these, 2,000 were in Government positions, and not one in six had anything that could be called home-life. Mr. Mott carried the International Committee's "roll" with him — $75,000 for a building — and started a campaign which raised $42,000 in the city. That campaign was a real American achievement. Everybody in the city had it brought to his attention, in one way or another. One of the photographs shows the parade of "Boosters," which was a feature of the campaign. There is no more effective publicity agent in the world than an International Association man in action.

ASSOCIATIONS FOLLOWING THE FLAG

When Admiral Evans's men "landed with a whoop" at Rio de Janeiro, the first thing that caught their eye was this sign: "Information Bureau for American Seamen." They knew exactly what it meant, for at Newport and Norfolk and the Brooklyn Navy-Yard every man Jack of them had mastered one simple law of navigation — Steer straight toward the "Y. M C. A." light, for that is the only place on shore where a sailor is welcomed by a man who does not expect to fleece him. That sign at Rio caused a rush that made the waiting saloon-keepers stare in amazement. There Jack found stationery and tables for writing to the folks at home — and he used up 8,000 sheets of paper and 5,000 envelopes, all free. He bought 40,000 postcards, and changed $80,000 of good American money into many millions of reis, at the lowest rate of exchange. He found a guide to the city, printed in English, and a squadron of "Seeing Rio" automobiles that looked like home. Two thousand automobile trips and 3,500 special excursions were arranged by the Association for his benefit. The official "barker" was Able-Seaman Jenkins, of the *Virginia*, who transformed himself into a human megaphone and filled the air with such oratory as this:

"Excursion to Corcovado — big run for your money! Come on — you're a lot of mutts if you pass this up. You'll never have a mother look after you as well — come on!" And they came on.

When the great fleet finally rode in upon the waves of San Francisco Bay, Jack found the same kind of welcome from the same kind of men. There was a beacon light shining from the Naval Club Building, which is a club for enlisted men. When he reaches Honolulu on his westward cruise he will see the beacon there — and again at Melbourne — and again at Manila, and so on.

This work for the men of the Navy began at a tobacco warehouse at Key West during the Spanish War and was eventually made permament at the request of the Government. An Association was established at the Brooklyn Navy-Yard, near which a village of brothels fattened on the sailors, and there is now a building costing nearly a million dollars, the gift of Miss Helen Gould and Mrs. Sage. A second building has gone up at Norfolk, with an annex on the Guardo near the receiving ship. There are also buildings at Newport, R. I., and Vallejo, Cal., and Associations at Philadelphia, San Juan, Cavite, and other places where the ships come to anchor. For use on shipboard, lantern lectures and traveling libraries and a news service have been widely distributed. Here are just a few of the figures showing the naval work in 1907: Beds occupied, 102,677; meals served, 192,936; money deposited for safe-keeping, $568,868; professed conversions, 1,372. A lieutenant in the Royal Italian Navy was so impressed with this work that he recently wrote to the International Committee for information with regard to its methods. It is now so well established as a part of the navy's machinery that the Secretary of the Navy includes it in his annual report.

THE ARMY, IN WAR AND PEACE

The Young Men's Christian Association entered the army in 1861, when the United

States Christian Commission was organized under its direction. From the close of the Civil War to the outbreak of the Spanish disturbance, few special efforts for soldiers were directed. The Association's Spanish-War campaign was being worked out before the first gun flashed, and its secretaries went with the Army into the great camps of this country, then to Cuba, to Porto Rico, and to the Philippines. Much of the work was done through the International Committee, but there were also many state secretaries in the field. Kentucky, for instance, had a tent and a secretary with each of its three regiments. One of these secretaries was himself an enlisted man, detailed by the colonel of the regiment on request. When the regiment was divided into small detachments and distributed all over Porto Rico, the secretary volunteered as mail orderly and kept in touch with every squad throughout the mountains. His little white horse would to-day be recognized by nearly every man that served in that regiment.

The Association's army work was so extensive and so efficient that it also has been made permanent, for the secretaries in charge were not merely supernumeraries, like most of the chaplains in the service. Only a beginning has been made, for it takes money properly to equip an important post with a building and a secretary. There are fine buildings at Fortress Monroe, Fort Leavenworth, Fort Jay, and Fort Hancock, but most of the stations are served with makeshift headquarters. More attention has been given to the men on the outposts, because they have the greater need. The transports to the Philippines have generally had an Association man on board, and the camps throughout the islands have been so well served that a Manila paper once called attention to the fact that four out of every six letters that came from the interior were written on Association stationery. Even the men holding lonely telegraph posts along the Yukon River in Alaska are reached in summer by a secretary in his little naphtha launch. During the winter months, he makes his headquarters at Fort Seward. He is a "live" man and his efforts to brighten the lives of the men with entertainments and keep them up to the standard are so original as to be at times amusing. He is not greatly loved by the saloon men of Alaska, for one of his specialties is a "Pay-Day *Enter*tainment," to keep the men from squandering their meagre income. He has also organized a "Pole-Climbers' Club," which is a temperance organization. The soldiers belonging to it have pledged themselves to "go up the Pole and stay there during the remainder of their service in Alaska."

The whole equipment of the army and navy work at the present time comprises fifty paid secretaries and eleven buildings. The support of this department of the Association's activity is mainly from American women. Nearly every woman has a tender heart toward the man in uniform, and the interest is fully reciprocated. These Association women do a great many things for the comfort and convenience of the men in service, but an appeal is always made to their better natures by linking the service in some way with home. They send books and magazines to the army posts, but they also make "comfort-bags" with their own hands. They put music-machines on battleships, but every man who wants it gets a New Testament — not a five-cent edition but a well-bound copy with a personal inscription from the donor. It is this personal, feminine touch to their kindly deeds that makes the man in uniform ready to fight for the Association as well as for the flag. Many of the men in the Service have no homes — you will find on the enlistment books that scores give the Brooklyn Naval Branch of the Association as "home"— and to these men, more especially, is provided an anchor that often keeps them from going on the rocks or drifting away as derelicts.

But there is another side to this work — its effect on the parents of soldiers and sailors. Two recent instances will show it. A headstrong young man, with a decided aversion to all restraint, ran away from home and joined the recruiting station at Norfolk. On his way to the receiving ship he saw the sign "Y. M. C. A." on the Guardo, and passed it in disgust. He had not been on the ship long before he found out what it meant to the others, and he began to visit it. Finally he joined it, then wrote a letter to his mother, telling what he had done. That letter lifted all the worry from her heart. Another young man with a similar record came to Brooklyn and joined the navy, thereby bringing down upon his head the parental wrath. The religious activity of the Association caught this boy and he wrote back home that he had been converted and was now headed on a

new tack. This was a little too much for the old gentleman to accept, and he came all the way from Iowa to find out if it were true. It was true. The unimportant fact that a soldier in the Philippines writes home on an Association letter-head means more to a mother than the average man understands.

This article has confined itself mainly to the work that is being done around the world, ignoring the men and women who are doing it for that is their own spirit. But if you ask a group of sailors or soldiers to name the one particular woman who from the beginning has made the work possible, they will tell you that the guardian angel of the man in uniform is Miss Helen Gould. There are many others who have made large contributions, but Miss Gould has made it one of the chief interests of her life. When she went down to Jamestown to attend the opening of the Army and Navy building, it occurred to some of the men that she might appreciate it if they should send her some roses to let her know what they thought of her. In view of the fact that the taste of most men runs to red, it is perhaps significant that the roses which they gave to Miss Gould were white.

"The better the men, the better the Service" — this is the keynote of the army and navy department, and it was this which brought forth the remark from President Roosevelt: "What I like about your work is that you mix religion with common sense." The Association has little sympathy for the "goody-goody" type, and it has never yet taken any of the fight out of a soldier or sailor. Its aim everywhere is to make young men more efficient in their particular job — and the job of the man in uniform being to fight, it makes him more efficient there. One of the best evidences of what the Army and Navy Association stands for is an article which it recently published in its official paper. Its hero was Billy Hicks, captain of the foretop, whose turn it was next day to try to do something out on the yard-arm that two men had tried to do and lost their lives. That night Hicks was allowed to practise with the signal light; the next day he went out on the yard-arm and did the job; a week later, the officer of another ship showed Hicks's captain the following message, which he had copied down while Billy was flashing it up into the sky:

"GOD THIS IS BILLY HICKS I AIN'T AFRAID OF NO BLOOMIN MAN NOR DEVIL I AIN'T AFRAID OF NO DAVY JONES BLEEDIN LOCKER NEITHER I AIN'T LIKE A BAWLING BABY A FUSSING AT HIZ DAD FOR SWEETIES I DOAN'T ASK YOU FOR NO FAVORS BUT JUST ONE THIS IS IT—WHEN I STRIKE THE FORETOP TO-MORROW LET ME DO IT WITH THE NERVE OF A MAN WHAT IZ CLEAN AND GOD DEAR GOD FROM THIS HEAR DAY ON GIV ME THE FEELIN I USTO HAVE LONG AGO WHEN I NELT AT MY MOTHERS NEE AND SAID OUR FATHER GOOD NIGHT DEAR GOD."

THE TRAINING OF A PRINCE

THE METHOD WHEREBY THE GERMAN EMPEROR HAS HIS SUCCESSOR PREPARED FOR KINGSHIP

BY

WILLIAM C. DREHER

PRINCE WILHELM, the Crown Prince of Germany, is now having the unusual experience of being thoroughly trained to rule. He goes daily to the Ministry of the Interior to assist the heads of departments in discharging the many matters that come before them for decision. When he has mastered all the details of this department he will continue his training in other ministries, until he shall understand the workings of every wheel in that big machine known as the German Government. At the same time he attends occasional interesting debates in the Reichstag or in the Prussian Diet. But this is not all that the Prince is doing to fit himself for the tasks of practical statesmanship. He has recently enrolled himself as a special student at the Technical University in Charlottenburg, where he hears lectures on mechanical engineering. Thus he is making good what he said to the rector of Bonn University upon the occasion of his

ex-matriculation, when he expressed the hope that he would be able, through assiduous study for himself, to fill up the gaps left by his university course. That was five years ago, and the Prince is still engaged in stopping those gaps. He has evidently learned that, with a serious man, the work of education never ends.

The first training of the Crown Prince, who was born May 6, 1882, was begun in the royal household under private teachers. He was taught English almost as early as he learned German. He had an English nurse and, as English is spoken in the Imperial family almost as much as German, the little Prince learned it almost as a second vernacular. When he was about eight or nine years old he began to learn French in the same natural way from a French-Swiss theological student. By the year 1891 he had finished the primary work that usually precedes the course in the gymnasien, the fitting schools that prepare German youth for the universities. At this point it became necessary to select a responsible teacher to take entire charge of the lad's education. After much careful investigation, the choice fell upon Dr. Esternaux, who is at present director of the gymasium in Spandau. He had charge of the Prince's education during nine years, that is until the young man was ready for the university.

Professor Esternaux was installed in his position as instructor in the old Schloss in Berlin at Easter, 1891. Here, and later in the Bellevue Schloss, lying in a quiet nook of the Tiergarten, Berlin's principal park, he took his imperial pupil over the regular gymnasium course, with the exception of Greek. The change was rendered necessary because life at court was found too distracting. They needed a place of quiet retirement and found it for a time in the heart of the great city park. Here the Prince finished the work of the class called "Tertia," which means five years of the gymnasium course.

At this point, however, a change was decided upon. It had always been the Emperor's intention to have his sons take the gymnasium course, but he was of the opinion that the older type of gymnasium gave too much attention to the classics and too little to the modern languages and the sciences.

By 1896 the Emperor and the Prince's instructor reached the conclusion that the *lad needed the* stimulus of work in company with other boys of his age. The decision was therefore reached to send him and his brother, Prince Eitel, to a school of the gymnasium type. The Emperor demanded that the school selected should not be in a city, but should give the boys something approaching country life and offer them wholesome contact with nature. The Cadet School at Plön, situated in Schleswig-Holstein, about twenty miles southeast of Kiel, was selected.

The Cadet School, attended at that time by about one hundred and sixty boys, is housed in an old château, built during the Thirty Years' War. The special purpose of the institution is to train boys who expect later to become officers in the navy; its course corresponds to that of the gymnasien, but with less classics.

The first thing to be done, after the selection was made, was to prepare proper accommodations for the Prince and his household; for it was not the purpose of the Emperor to put the lad actually into the school, to touch elbows with all sorts and conditions of boys. Probably the Emperor's own experience, as a boy had not been such as to convince him that the democratic method of educating princes was best for them. A house was specially prepared to receive the boys by adding two wings to the so-called "Pavilion" in the park of the Cadet School. Several rooms were placed at the disposal of the Crown Prince and Prince Eitel. His military governor, General von Deines, the head of his household and the representative of the imperial authority, also lived in the "Princes' House," as it was now called; and Professor Esternaux completed the little family. Several rooms were specially fitted up and kept in readiness for the Empress, who frequently came to visit the boys. The household, kitchen, and stable servants were accommodated in adjacent buildings. The princes were amply supplied with horses and ponies for riding. Evidently it was not the purpose of the Emperor to impose upon them a training rendered artificially rigorous. On the other hand, the life of the princes at Plön was as far removed from ostentation and luxury as it was from Spartan severity. A well-cooked, simple dinner of four courses may be taken as the gage of the physical comfort allowed them; health and well-being were provided for, but no more.

The princes came to Plön after the Easter vacation in 1896. Three companions had

been selected for each of them from among the cadets. These lived in the Cadet School but went daily to the Princes' House for instruction along with the princes; they were also the playmates of the latter during their hours of recreation. The princes had no recitations in the Cadet School. They only came into contact with a larger number of the cadets in some ball games and in boating regattas on the lakes. Of the Crown Prince's companions, two were sons of nobleman.

His routine of daily work was the following: In summer he would rise before six o'clock. After a simple breakfast he began to receive instruction at seven. In winter he rose nearer seven, and instruction began at eight. It continued till twelve, when he took dinner with General von Deines, Professor Esternaux, and Prince Eitel. After dinner he had to prepare his exercises for the following day. This lasted till four o'clock. He was trained to help himself in such work, but he could consult a teacher waiting in an adjoining room for explanations of matters not understood. After four o'clock, an hour was devoted to swimming in the lake, or to gymnastic exercise, according to the season. From five till seven the Prince was allowed to amuse himself in his own way. At seven the little family sat down to a simple supper, after which the Prince might devote further time to the morrow's lessons, if they were not yet fully prepared, or he might occupy his time with music, writing letters, or otherwise. The hour for retiring was nine o'clock during the first part of his time at Plön, but later he was allowed to continue his studies farther into the night if he found it necessary.

This was the general scheme of work, but it was not adhered to rigidly. The hours of work and play were sometimes changed to take advantage of weather conditions. The class-room companions could be called from the Cadet School for recitations at any moment, and so there was no special ground for a definitely fixed plan of work.

The greater part of the teaching was still done by Professor Esternaux, but instruction in some special subjects was given by teachers from the Cadet School. English and French conversations were continued at meal-times with native teachers, topics of the day or newspaper articles affording the subjects of talk. Physical and artistic accomplishments were not neglected. A marine was drafted from one of the war vessels at Kiel to go to Plön for several months during the spring to teach the Prince rowing. General von Deines trained him in target practice, for the Hohenzollerns are traditionally great hunters, and the princes of the royal house are not left to haphazard methods in learning to shoot straight. The Crown Prince has considerable talent for music; and at Plön a professional musician came up once a week from Hamburg to teach him to play the violin.

In the school life at Plön there was no lack of boyish sports. Beside the ball games and rowing already mentioned, the Prince played tennis, and rode horseback or bicycled to places in the vicinity.

After he had been two years at Plön, the Prince stood successfully the so-called "ensign examination." It had been the Emperor's intention to have him break off his course at this point, but the physical and moral results of the two years' work there had been so satisfactory that it was decided to let him remain another two years and complete the course. This was done, and he stood his final examinations on February 22, 1900. He passed the written part of the examinations so well as to entitle him to be excused from the oral part; but the Emperor required him to take the latter also.

There was little in the training of the Prince at Plön to give him a feeling of overweening self-importance. He was never addressed as "Your Imperial Highness," but always merely as "Prince Wilhelm," even by the servants. This was in accordance with the Emperor's commands. Discipline was nominally in the hands of General von Deines, but there was never any necessity for stringent measures. On one occasion, according to a newspaper report, the General ordered the servant to give the Prince a glass of water instead of wine, after he had already taken several glasses of the latter. His companions described him as amiable and free from conceit and selfishness. Professor Esternaux, in summing up his view of the Crown Prince's mental characteristics, said to the writer: "He has a quick mind that goes at once to the essential points of any subject; he has the mental qualities necessary for a ruler."

After the lapse of a year, the Prince entered Bonn University, where he was enrolled as a student of law. He heard lectures on German law and administration, German

and general history, political economy, and other subjects having a direct bearing upon his future political duties. He went into the university lecture-rooms for a part of his lectures, but he heard most of them in his villa. Here, too, his professors praised his quick understanding, which he frequently displayed in discussions with them of the subjects of the lectures. Comparatively little, however, was heard, during his university course, of the studies with which he was occupied; the public heard more of his sports and travels.

The Prince was told when he went to the university, it is said, that this would be the only period of his life when he would be fully free to do as he pleased; and he was evidently bent upon having a good time. He joined the "Borussia Corps," an aristocratic secret society to which his father had also belonged. His favorite sports at this time were fencing, tennis, and cycling. Frequent excursions were made with his corps comrades into the beautiful Rhine valley above Bonn. On one of these he gave evidence of his dislike of being treated with special consideration because of his rank. Waiting at a little railway station for the train to take him back to Bonn, he learned that the stationmaster had telegraphed up the line to have a first-class compartment reserved for him. To the dismay of that official, however, the Prince conducted his party into the baggage car.

The Prince's work at Bonn was frequently interrupted, especially during the final semester, by hunting trips to distant parts of the country, as well as by social visits, including a stay of a fortnight, near the close of his course, at the court of the Czar. Finally, at the end of February, 1903, he met his professors and deputations of the various students' organizations for his ceremonious ex-matriculation. The latter appeared in their traditional uniforms, wearing their corps colors and bearing their standards. The rector of the university addressed some farewell remarks to the Prince; and his response amounted to an apology for the unsatisfactory progress that he had made during his university course. A week later the Prince and his brother Eitel were on their trip to the Orient. His university course was over.

EXPERIENCES OF A POPULAR LECTURER

THE GENUINE QUALITIES OF THE PEOPLE FROM THE ATLANTIC TO THE PACIFIC

BY

JACOB A. RIIS

I WAS to lecture at Cedar Falls and was laid up at a junction, waiting for my train. At the lunch-table were three typical Iowa farmers, all bound for the lecture. They are great people. I have known them to travel forty miles across the frozen prairie to hear a lecturer in whom they were interested. In that same winter I spoke in a little town a dozen miles beyond the bluffs of the Mississippi River, where the population, men, women, and children, numbered three hundred. To my amazed inquiry where the audience was to come from, the manager of the lecture said simply, "You wait." And when at night I found the hall jammed with a crowd that numbered at least six *hundred*, he took me to the window and pointed to a great host of teams and wagons below. Some of them had come from the next county. I have sometimes wondered how they got home. When I started at four in the morning a sleet-storm was raging, with the snow lying foot-deep.

But about my three neighbors at lunch. They began talking about the lecture at once. Some one addressed me by name and they dropped their forks and stared hard.

"Be you the man that's to speak to-night," said one of them. I answered that I was. He pushed back his chair and looked me up and down, deliberately and long.

"Well," he said, turning to his companions. "Ye never kin tell from looking at a toad how far he 'll jump."

Was it a compliment, or the other thing? I have been trying to find out ever since, without success.

OUR INEVITABLE RESPONSIBILITIES

But if I have any doubt as to what that Iowa farmer thought of me, I haven't any as to the attitude of his State, of all the States when it comes to that, toward civic betterment, a brighter to-morrow, and citizen responsibility for that to-morrow, with which my lecture dealt. I have had unusual opportunities of judging how far, as a people, we are awake, or asleep in the dead old *laissez-faire* philosophy that meant letting bad enough alone, for I go across the country in the course of the winter sometimes twice. And I record without hesitation my conviction that we are very much awake. We may be merely stretching ourselves before rousing up, where we happen to be very comfortable, as in a Southern California town where, going to my lecture, I heard a singularly sweet-voiced bell and asked what it was.

"That," said my conductor, "is our curfew-bell."

"Oh," said I, "and have you a curfew-law? You are looking after the children, then."

"Y-e-s," he owned, reluctantly, "we have the bell, and the law — but nobody pays much attention to them."

That was stretching — yawning perhaps — but the rousing up was at hand. I saw plenty of evidence of it in that country. It may be that we disagree about the ways, too; that's healthy. Something is sure to come out of it. This minute I had to lay down the pen to answer a call on the telephone. A friend who was alarmed about the spread of socialism wanted help in building a dike against it lest we be swamped. The evidence is, on every hand, that the people are thinking. It is my own opinion that it is President Roosevelt who has set them at it — himself the fittest expression and exponent of the thought of the day. But, whoever did it, the fact is there. And the fact is cause for gratitude. Let the outcome be my way or the other fellow's — it is still the way the world moves.

I once rode in a street car with a man who had definite notions concerning the other life. Some people, he said, would never get there. Their souls had shrunk so in this world that there would be no immortality for them. There was nothing for it to lay hold of, as it were. "Then," said I, "there must be a reckoning waiting for those who are responsible for the shrinking." I have never forgot his answer.

"My friend," said he, "we are all responsible more or less."

I think he put in so many words the feeling that has come over us all and that lies at the bottom of all our struggles, economic or otherwise. We are all responsible, and so it devolves upon us all to find the remedy. Hence we are all searching. The city seeks a way of setting a bar against the slum. The country is abandoning, at the same time, its claim to exclusive righteousness and the intellectual isolation that drove the boy from the farm, and is seeking, by telephones, by good roads, by rural free delivery of mails, to get into touch with the neighbor it once scorned. Every day it is brought home to us that we "belong"; that as a people we have to solve our problems together since apart we never can. And so we shall solve them come what may.

THE OLD RÉGIME

Compare that, now, with the day that was, when we in my city stood by unprotesting while a church that had grown wealthy moved uptown from Mulberry Street, trading off its House of God to the devil in the human shape of conscienceless builders who cut it up into rooms and filled it with tenants who in their cubby-holes knew neither light nor air and died like flies until the Board of Health dubbed it a "den of death," and yet let it stand unchallenged. For that was before we had conceived the notion that humans are of more account than houses, and yet it was only half a century ago. Come down half that span, and the woes of the other half are barely beginning to find ears to listen. Cut the quarter-century in half once more, and behold a city of tenement-house commissions, of tuberculosis inquiries, of playground achievements, of child-labor investigations, of school reform, of political and social overturnings that may not yet bring "kingdom come"; but the day when "all the influences made for unrighteousness" in the homes of the poor without a voice to rebuke them is past. The day has dawned that shows me my brother under the ragged coat, made like myself in the image of God and therefore kin. Draw the line between what was and what is, and see how far we have come. And never fear we

shall not get the rest of the way, whatever the croakers prophesy.

What else was it but the conviction that I am my brother's keeper that dictated the letter which lies here on my desk, asking me for a message to Philadelphia on "Tag Day," when walking delegates of a new kind shall search out every last man in the City of Brotherly Love and tag him to "help the children." I don't know who invented the game; it is several years since I came across "Help Children Day" in the city of Copenhagen where everyone who could walk, from the king to the humblest citizen, was taken with a fit of shedding quarters, half "kroner" and "kroner," or pennies if he had nothing else, and promptly took to the street to shed them there into the nearest contribution box. Whoever began it, it is a good game, less for the money that is made for this or for that cause that concerns the children than for the lift it gives every cause that bears their welfare aloft. Lots of people who have no idea of the tax which child labor levies on the state in crippled, spent manhood and womanhood, and in indifferent citizenship, are set to thinking by it, and once you get thinking of that, you are not going to stop short of the demand that every little toiler who slaves in a shop be put in school instead, and kept there till he is fourteen anyhow. They need wide-awake citizenship in Philadelphia, and that is one way of getting it ten years hence — even now; for the man whose mind and heart are both jogged on that subject is already a better citizen for it, and his city a better one for his being in it. Did I send them a message? You may be sure I did. I told them to bring out the old bell and let it once more "proclaim liberty throughout the land," the dawn of a new day not only for the old town by the Schuylkill, but for our country far and wide, a day that shall make the world a better place to live in.

THE PURGING OF THE CITIES

Somewhere I read the other day that Paderewski marvelled at the strides made by American cities, not in wealth or commerce or evidences of either, but in apparent comfort, in beauty, in the evidences of home-making. Every new trip he made to America brought new revelations. I have watched that process going on these last dozen years and I cannot *help identifying* it with the era of Carnegie libraries that gave the impetus, set up an ideal in brick and stone, in places that had been strangers to that kind of ideal before. It was as if they had been waiting for something beautiful to come their way, those mean little towns that were mean in looks merely because they had not had time to spruce up, being so busy building up. The minute they saw it they fell in behind. And from ocean to ocean our broad land is stirred to day by a desire to look well that is working wonders. Sometimes it has still a commercial tinge — it is the Chamber of Commerce, the Merchants Club, that leads on; more often it is a woman's club that lays out parks and sends out squads of school children, armed with sticks with nails in them, to arrest the paper that flies about in this paper age and makes life in my own home-town, within the limits of the Greater New York, absolutely miserable on windy days. Sometimes it is the authorities, set on by one or the other, that are cleaning up and setting things to rights. In the end it is always that. The sleepiest Mississippi River town feels the new awakening and is bestirring itself to inquire into its slums, its housing of the toilers that underlies all other social questions, because as a man's home is, so is his public and his civic conduct going to be. A man may be a poet and live in squalor, but he cannot be a day laborer and be condemned to live in a slum without becoming one of two things: a beast or a revolutionist. Give me the latter then, for in him there is hope, if it does cost dear.

AN UNREST THAT MEANS PROGRESS

But it is not going to cost as dear as that, for even now the revolution is in progress, only it is spelled without an R. The signs that Paderewski saw tell of it so that he who runs may read. Abreast of this awakened instinct for things beautiful to the eye, strides the new interest in the things righteous and true and good. Have we not all seen it? Have we not seen the boss dethroned, graft and iniquity exposed, the muck-rake plied until the stench of it all was sickening? Yet let us be comforted. The muck has to be raked up before it can be carted away, and the devil is not cast out without a prodigious noise. He is wedged in the doorway now, but he is going out, and that soon. It is good to live in this strenuous day that took him by the throat.

Am I an optimist? Yes, on the evidence

of my senses; because I have lived in the darkness and seen the light come; because I have struggled with the Mulberry Bend and seen it go down; because all about me I see the dawn breaking. When I lecture, it is that of which I speak, of the fight against evil in our cities that is everywhere a winning fight, and, as I said, I speak in the unlikeliest places. But I have yet to find one where I do not see eyes kindle with the desire to help; where men and women do not come and shake my hand and say, "Thank you for that lift." Aye, the lift! They are lifting, one and all. Rarely do I know the history, the aspirations of the particular community that I meet in the evening, so that I may speak to them especially — there is no time. Yet rarely is there a seat left vacant. I was coming up from the Ohio River, due to speak in a small town on Lake Michigan one night, and my train was late. I knew I could not make it, so I telegraphed ahead that it would be 10 o'clock before I got in, and went into the dining car. The lecture was to be at eight, and I struck it off my calendar with a sigh. The train pulled up on the lake-shore nearer eleven than ten, but there was the committee waiting for me with a cab. They hustled me off to the opera house where I found the audience eating midnight lunch. They had gone home for it and were having a good time. It was toward one in the morning when we parted.

And yet I have neither eloquence nor wit to offer. I am not even good to look at. The only time I was called that it gave great offence. It was in Potsdam, N. Y., while Mr. Roosevelt was Governor, and there was a deaf man in the audience who particularly disliked him. The chairman introduced me as chairmen often do — I suppose it is a great temptation — as the man whom the Governor had called the most useful citizen in New York. I saw the ear trumpet wagging excitedly but I could not guess what agitated it until the lecture was over, when the deaf citizen came thundering down the aisle; "Did n't I tell you Roosevelt ain't got no sense? The idea of calling that man Riis the most beautiful man in New York. Why, he 's as plain as can be." And I have not forgotten the newspaper critic in Jamestown who described me as "a voluble Dutchman with a voice like a squeaky cellar door." Nothing cheered me as did that; for it does n't make any difference how it squeaks, they are there to hear. I speak to them, though we don't know one and another. They are having their fight and they are winning it, or they are going to. I can see it in their eyes, feel it in their handshake. We are all enlisted for the war; then what does the rest matter?

VISITS OF CONTRASTS

Are we gaining? Here, yesterday, came a letter asking me to come to Scranton where they are getting ready to give the children playgrounds. They wanted me to help. Once upon a time I ran out of that town faster than I had thought it possible I could run, with the town guard sighting over their guns behind me. Not that I, a stranger just in on a train from the West, had done anything except foolishly to try to find out what the crowd in the main street was up to. I found out. It was in the railroad riots of 1877, and the mob was just getting ready to raid the Scranton Company's stores. They killed four in the crowd; that was why it ran and I with it. A year ago I spoke in Elmira. The last time I was there before, they ran me out of it and gave me short shrift at that. Again I had done nothing but try vainly to hang a magic-lantern curtain on a house-top in a wind storm, so that it might be used for advertising purposes. But it was in those same perilous days. The mob was at the other end of the bridge fronting which my house stood, and the vigilance committee took no chances. I was a stranger there, as at Scranton, and explanations were not in order. And now reception committees await my coming. Do you wonder that I think we are gaining? The pessimist I meet now and then as of yore, but he is either a crank, an anarchist, a professional pessimist, or else it is just he himself, like my visitor out in Minneapolis, one of my own people, who called to tell me that he had "intended to get up something among the Danes," in anticipation of my visit, but there had been so many who turned out to be frauds that he had given it up. When I think of him there rises before me the neighbor who called on my wife when we were strangers in our town and took pains to explain to her that, though he was himself of an old American family, he was always polite to foreigners as a matter of principle, because his mother had said it was right; even if they were foreigners they might be very nice people.

Big towns or little towns, it is all the same. Everywhere the same stir, everywhere the same eager acclaim of the ideals that show we are one people, working for the same ends.

THE MANY ROADS TO PROGRESS

Everywhere, too, is the brother who hails me as a fellow socialist or single-taxer, that being his way out, and everywhere the same dubious shake of the head when I tell him that I am neither; that I am concerned about the people's so bettering home and school, so restoring to childhood its just rights of play and joy, that when the boy grows up and takes the reins he shall be able to judge clearly where now we see darkly. For never yet was single-taxer or socialist who could see over his own fence into the neighbor's yard. But it is all right. It is his way, and out of all the paths we shall yet choose the right one. The point is that he is seeking with the rest of us. Especially in the West it is likely to happen that at the end of a lecture someone will stand up and move that this or that reform that has been working to a head there without my knowing anything about it — kindergartens, manual training, housing-reform, playgrounds — be put in practice at once. If not, we sing "My Country 'tis of Thee," and I know that the reform will break out anyhow, and that shortly. I can hear it in the way they sing.

Sometimes I talk to the teachers in convention and I have the time of my life. For there is no finer body of men and women than these public school teachers, and though we do not always agree about the heredity end of it, they go with me all the way when it comes to the power of environment in shaping character and manhood. I know well enough what they mean, but I deliberately shut the heredity out if it is bad. You have to get down to a working basis for the good, and I just leave the heredity to the doctor. You can't change that, but you can shape the environment.

A DESPERADO, AGED THIRTEEN

In Portland, Ore., there had just been captured a desperado, aged thirteen, when I came in. He had snatched the purse of a woman out shopping, and it contained $58. So it was highway robbery and the newspapers *made* a great to-do over it. But when the judge, who had sense, put him in the hands of a probation officer and the truth came out of how he had spent the money — half of it on his pals for a duck-dinner, three dollars for a bugle that he could not play on, and seven and a half for a membership ticket in the Young Men's Christian Association — the laugh was on the other side, and judgment on the "desperado" was suspended while the young men of the Christian Association took him in hand. When I heard of him the year after, he was showing great talent as a caricaturist. It was just his sense of humor, I suppose. Anyhow, instead of a thief, there was a useful citizen; which was getting home to some purpose.

Sometimes it is the colleges or the schools that I talk to. I can hear, as I write, the low rumble of assent from those audiences in the Harvard Union, in chapel at Bowdoin, at Ann Arbor, at Leland Stanford, that goes up when you speak to them of the men who are doing things for our country. To my mind it always suggests the deep undertone you hear above the crash of falling waters at Niagara, the thunder of the irresistible current that sweeps over the great Horse-Shoe Fall, carrying the waters of half a continent. Like the tramp of the thousands of young feet marching to their seats in one of our great schools, it tells you of the to-morrow that is coming upon the stage, and when one has heard it once his doubts are at rest. He knows that the country is all right.

It may be one of these great schools in New York with a mighty multitude of children who, were they to stand together for the good of our city ten years hence, as they mean to, sitting there, would send us a long way on the road to the kingdom. All of them will not, but enough will to give the enemy the fight of his life; that you can tell from looking at them. Then again it is a private school in New England, in Jersey, in Pennsylvania, or in New York where the children go whose lines are cast in easy places. There are a dozen such schools that, of their own volition, are working with me in Henry Street, giving my boys there a gymnasium-teacher and wholesome play out of their own abundance; give it, I mean, out of their own pockets, and come in vacation to get acquainted. There is one big preparatory school in Brooklyn that has just offered to send its boys every two weeks to match mine at athletics, and fine times

they are going to have together, getting acquainted and so bridging the only gap that threatens real mischief to the Republic. One big public school up in the Bronx sent down a wagon-load of groceries to the Settlement at Thanksgiving, and when I went up there the other day I found them shipping off flowers to the Sunshine Society. That was at home. When I spoke last fall in the town of Wenatchee, in the Columbia River Valley, where they raise apples the like of which you rarely see anywhere, the school children promised to send my boys and girls two boxes of big red apples, one from the girls of Wenatchee to my boys on the East Side, and one from the boys of the Columbia River town to my girls. And they were better than their promise, as those Western people are, they sent them twenty. We didn't let it be known till they were nearly gone, or there would have been a riot in Henry Street.

Out in Montana it was the public school children who, led by their superintendent, set a fashion of cleaning up the city of Helena that has put a new ambition into it and awakened other ideals than the revolt against tin cans and rubbish. When the school children in Young Citizens' Convention resolve that Helena shall be "the cleanest and most beautiful city in Montana," it is safe to wager that there will be no more trafficking in United States senatorships by their elders. A man is going to think twice before he sells himself when it means that he can not look his boy squarely in the face because of it. And when I read that two states at opposite ends of the country, Washington and Massachusetts, are debating the establishment of children's playgrounds at the public expense in every city, I throw up my cap and hurrah for fair play. The interest on that investment we have been getting before we ever parted with the money.

THE GREATNESS OF THE SMALL THINGS

Perhaps these are little things, but wherever you go you find them, and they all point the same way, toward the brotherhood — not the brand that talks loudly and does little, but the kind that runs to service to the brother and thereby proves its claim to be at once applied Christianity and ideal democracy. For they both mean service, or they mean nothing. Everything in this world of ours is little or big according to the size of the man's understanding who is looking on. It is a little thing to some people that Pittsburgh is rousing itself to put an end to the slum that has been mocking its business prosperity with a typhoid fever death-toll, which as a matter of mere money would have wrecked any business long ago. It is a little thing perhaps, being local, that St. Louis is discovering that there is a connection, unsuspected all these years, between Portland Place and Biddle Street, though no cards and no calls are exchanged between the two — were exchanged I should have said. There will be yet, since they have discovered that they are neighbors. It is a little thing, perhaps, that Chicago, with characteristic energy, has laid out in a brief half-dozen years a system of people's parks and playgrounds that comes near realizing the millennium on that tack. It is a little thing to the sneerers and the fools that in every city in the land social settlements are springing up in a night, and beckoning the young and ardent from the schools and colleges to the highway where the neighbor that fell among thieves lies beaten and helpless; summoning them to give of their youth, of their faith, of their hearts. What if the injustice of it all drives some of them into the ranks of those who clamor for the revolutions? They are young and they can not wait. But they will come back, and meanwhile they are helping on the peaceful revolution I spoke of. Little things these may seem, yet there have been none greater since we made the start. For they mean that we as a people are beginning to live our republic. Heretofore we have lived on it, and when the machinery creaked we wondered what was wrong. We were wrong. We were not fit for it.

AN EXAMPLE FROM ABROAD

Nor are we alone in that. The awakening is world-wide. In Copenhagen, the last time I was there, I happened to pass the soldiers' barracks just inside the old wall and saw a great change. There used to be opposite the barracks a row of houses, brothels, and dives of a kind we happily do not know here, and after dark it was not safe for anyone to pass that way. The barracks were still there, but the row was gone. In its place stood a handsome red brick building that bore over the door the Danish equivalent of our Y. M. C. A. And there I found the soldiers, hundreds of them not on duty, as they had crowded the old dives before. But now they had libraries,

gymnasium, chess rooms, swimming pool, and they were sober and clean and content. That was Copenhagen's awakening, and I found a social out-reach toward the young setting strongly against the current of sneer and cynicism that had swamped my old home-city for a generation. When I went and spoke in their hall the night before I sailed for home, I found it jammed with young men and boys, and I can hear yet, four thousand miles away, the cheer that they gave for young America and its ideals, in a town I had thought not given to that kind of public demonstration. And it seems to make a kind of bond between them and my American boys here that completes the chain and tells me that we are brothers indeed, however long we had forgotten it.

THE WILL TO BE CHEERFUL

INCREASING POWER AND EFFICIENCY BY A CONSCIOUS ATTITUDE OF OPTIMISM

BY

DR. LUTHER H. GULICK

IT IS possible to select the bulk as well as the most real part of one's mental atmosphere. This may be more readily illustrated than proven. For example, I have in mind a certain image of a house, the windows of which overlook in the far distance some beautiful hills. In front of those hills there may be seen in the fall waving fields of yellow wheat. In the immediate foreground of the picture is a great stretch of smooth, green grass. But in the middle distance is a row of horrid little tenements, five-room houses, built as cheaply and kept as wretchedly as possible. The inhabitants of that house, whenever they looked out of the windows, at first saw very prominently the dirty little tenements. They stared at them in all their ugliness. Presently, however, these people discovered that it was possible not to perceive the tenements at all but, by deliberately directing the vision beyond, to enjoy the hills and the waving wheat and the green grass. It was not so much a question as to which view first caught the eye, as it was a question of which view should take hold and endure. The view from those windows became a symbol in that family of the resolute holding in mind of the things in life that are beautiful instead of those that are ugly, of the things that are pleasant as contrasted with those that are disagreeable, of the things that are true as opposed to those that are untrue.

That picture is life itself. It is not something out of a laboratory — not something out of a text-book. Deliberately to see the hills in the distance lies within our control.

THE DUTY OF CHEERFULNESS

There is probably no one person in the world but has tragedy enough and pain enough straight along to warrant — yes, absolutely to warrant — pretty complete discouragement. And I imagine that there is no person who is so perfectly adjusted by nature, so entirely balanced in health, that there are not times when it is necessary to hold himself by deliberate will-power — to forget how he has been hurt, to turn aside from some ugly thing in a friend's character, to turn aside from the bad in his own character, for every one of us has that which is bad in his character. Our characters are ugly enough in part so that, if we were to dwell constantly on that part, the prospect would seem pretty disheartening and justifiably so.

I once met a young man who told me that he was studying music. He said that his teacher had trained him to hear defects in the voices of singers. And he added, "Now I am able to detect defects in the finest singers." Of this he was very proud!

This, I believe, is the primary point with reference to the whole subject of the sanity and clearness of one's mental operations: we can have the fine things of life, or we can have the opposite — just as we choose. The type of person who is habitually seeing faults in others, who is constantly feeling pain

who is always imagining slights, loses the sense of balance and proportion.

Our friends are people who see the good in us and who believe in that good. That is not to say that they do not see the other side. They probably see it, and they ought to; but, by holding in mind the good in us, they help us to realize it more fully in ourselves and to hold ourselves to this vision of the ideal.

ENVIRONMENT THE PRODUCT OF THE MAN

This world is what we choose to make it. There are enough meannesses in everyone — ourselves included — to make for us a contemptible world, if we select the meannesses and let our minds dwell upon them. This twists and perverts our thinking. And, on the other hand, there is enough beauty in the world and enough sanity in life, so that, if we choose deliberately to put our minds on that beauty and sanity, we shall react directly toward wholesomeness.

The accomplishing of this lies essentially in an attitude of deliberate thought; and with a good many people it is an attitude of deliberate choice. I know of invalids who in spite of pain determine to see the beauty of life. I know men and women who have been tremendously wronged, but have deliberately forgotten themselves, and just gone straight on, seeking the beauty and the truth in life.

The first point, then, is this — the atmosphere which makes for sane, simple, straightforward thinking is predominantly one that can be chosen by each individual for himself.

It is not playing a false part deliberately to choose for one's self the truest thing and to hold to it constantly, even when the thing that is less true presses at the moment and seems to dominate. That is, the attitude of health in mind and body is not a false thing. It is the essentially true thing, because, unless we were predominantly healthy both in mind and in body, we could not live: if the sum-total of our lives were mainly defective, we would be dead or insane. So it is absolutely fair, during the up-stroke of life, to formulate that attitude and carriage of the body which one will use when the down-stroke comes. And every person, crippled or not crippled, who has an up-stroke in life also has a down-stroke.

"BURN YOUR OWN SMOKE"

Many people believe that to assume this attitude of health is playing falsely. They believe that the only thing to do is to be honest, and that to be honest means to pour out all the blackness of your soul on your friends. But that is not really honest; it is dishonest, dishonest to your best, your biggest self. It is an untruth — and I am not using words carelessly or without accuracy. It is untrue because it gives the impression of permanency to a state which is ephemeral. The old phase, "Burn your own smoke," belongs here.

This attitude does not mean turning away from the world's suffering and the evil of life. People have made that criticism. They have said that this deliberate assumption of the position of health and happiness when one does not have health and happiness is just turning away from the suffering and the evil in the world. But it is not. This can be done only when one looks with wide-open eyes at the wickedness and the suffering within and about one's self, but sees at the same time the good and realizes that the good is the thing to hold, believing that the deliberate selection of the best is possible, that one can to the extent of one's will — whether it be a strong will or a weak will, but at least to the extent of one's will — select the thing that is strong.

People sometimes say that those persons who deliberately choose to look at the good of life are dodging life's responsibilities and its realities. I think that is wholly a mistake. The hills in the picture that I have described are a great deal more real, more enduring, than those dirty little houses. The houses can not last very long; the hills endure a long, long time. The thing that is real in that situation is the beauty, not the evil of it.

I think that is true about most of life. Every one of us has things in life that are wretched. We are sick in some way, we are in trouble, or we have friends, those who are dear to us, relatives, who are in tragedy, pain, or trouble. We do not have to go far to find pain and sickness and evil in the world; and there are people of that temperament and that philosophy who pick out all the evil things and who predominantly hold them in mind. They thus maintain about themselves an atmosphere of depression. We call them pessimists. They are the people who of two evils will choose both. But is such a person dealing with reality in the world more than

the person who takes life's good deliberately and conscientiously, and daily holds it in mind?

It seems to me to be a question of ultimate reality. So far as I see, the ultimate reality is toward good far more than toward evil. Evil tends toward its own extinction. It is becoming more and more ephemeral. I do not think that we will ever get away from it entirely, but it tends toward its own elimination.

THE RIGHT OF SELECTION

The person who spends all his time fighting evil misses the good of the world. You have something in your life that you do not want and you go to work to fight it. The more you resist it, the stronger it becomes, for that is the law of habit. The very intensity of one's thought tends to magnify the evil. You fall in love with somebody with whom you should not fall in love, and you make up your mind that you will not think about her. You find that you are thinking about her all the time, and the very conflict accentuates that which you are trying not to do. Life's battles are not fought in that way. They are fought in a positive way. You can not say, "I won't think"; you can say, "I will do the other thing."

It is our right to select from life those things that we want to look at. We can select pain or happiness; and the primary difference, I think, between people who are wholesome in their mental make-up, who are efficient in their mental processes and those who are not is in the kind of things that they choose to have before their mental visions. You know the good friend who is in earnest about your character and who thinks that good character is to be won only by throwing out the evil. He sees some fault that needs removal (and it is probably true), and he tells you of it. The critic who is constantly looking for evil finds it, and his life is filled with evil; he lives in an atmosphere of it. The other friend — far less philosophic, but far more of a friend — and you welcome him or her — is the person who, whenever he sees something good, something happy, says so, dwells upon it and welcomes it.

You know the teacher who is looking for disturbances in the classroom and every time a child makes a noise is looking for that child. That teacher lives in an atmosphere of disturbance; she is choosing a mental environment of disturbance; she is living in a psychic state of disturbance. You know the other teacher, who is looking for the positive good, for obedience, for courtesy, who, whenever she sees obedience, courtesy, honesty, faithfulness, commends them. That teacher lives in an atmosphere of obedience, courtesy, and honesty, and all the children around her do the same thing. One it is a pleasure to know; the other it is a pleasure to avoid. We avoid the one steadily, persistently, unconsciously, and we seek the other — thus showing that this deliberate selection of our mental atmosphere is not an artificial thing that we think about and bring to consciousness, but it is the natural and wholesome reaction of every sane and normal temperament.

THE PURSUIT OF THE BETTER

The philosopher is in search of truth, and truth is not supposed to be a matter of temperament. During the last few years a new phase of philosophy has arisen which is most prominently known in America in connection with the names of James and Dewey, and in England with that of Schiller. The fundamental proposition of this — the pragmatic philosophy — is that that thing is true which holds true when applied to life. Pessimism doesn't work out. The pessimist has relatively poor circulation, digests food less well, is less muscular, and particularly has fewer motives in life than the optimist. Pessimism is negation, denial, believing that the evil is more than the good, that life is not worth while; it is dampering down of life. Pessimism tends to its own annihilation, because it takes away life's motives, life's vigor, life's power. Optimism tends toward the increase of life, increases the joy of living. If one accepts the pragmatic point of view, optimism is justified. Hence I, for one, believe in the optimistic point of view — believe in it as absolutely and in the same sense as I believe that two times two make four. It operates to make life a better thing; it makes for sanity as distinguished from insanity.

Optimism does not mean being satisfied. It says, "Here is a good thing, what is better?" Optimism is the pursuit of the better, and the attitude which it takes is the attitude of success, as distinguished from the attitude of failure. The realities of life are its successes, its dreams and hopes, its health and love.

The World's Work

WALTER H. PAGE, EDITOR

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MR. TAFT AND A PART OF HIS FAMILY

THE WORLD'S WORK

AUGUST, 1908

VOLUME XVI NUMBER 4

The March of Events

THE influences of the time make for the conservative mood. It is hot midsummer, the midsummer after a panic and of a Presidential year — a good time to cultivate a calm spirit, and to make sure that one's judgments are sound and well-balanced.

In business, this much is sure — that the agricultural and industrial foundations of our prosperity are set true. Further than that, every man may guess for himself. Since the summer began there have been encouraging renewals of industrial activity, such as the resumption of full-time work at factories that had been half-closed, and the starting up of others that had been shut. There are fewer idle men than there were three or four months ago; and the season of the harvest is come. But those who look back before they look forward are likely to guess that the old full tide of prosperity will not rise suddenly. When did it ever rise quickly after a severe panic? It may linger somewhat longer, too, because of the political campaign.

With the fundamental soundness of business conditions assured, in spite of a lingering hesitancy in action, those men whose affairs are well managed may get a summer of rest; they need not have uneasiness even if they do not find normal profits; and such a period is a good time to lay careful plans.

A DULL CAMPAIGN AND ITS OUTLOOK

THESE are good conditions for a Presidential election. Men are neither so much discouraged as to become reckless nor so confident as to be indifferent. They are not going to run after wild theories of politics or of economics. Stability, safeness, calmness — these are the qualities now foremost in the public thought. The outlook is for a very quiet, and even dull, campaign; for, more than in any recent Presidential contest, every "issue" had been threshed out beforehand. There is nothing new to consider, and nothing, new or old, to become greatly excited about. Partisanship has become so weak that the old political battle-cries fall languidly. The campaign orators will find it a hard task to pump up a strong flow of eloquence.

The personalities of the candidates count for much more than the parties. Of course, the full normal Republican vote will be cast for Mr. Taft. He will repel no section of his party, for there are no Republican factions of any account that will oppose him.

But so much cannot be said of Mr. Bryan, for his party is much demoralized. While, of course, again as always, the great mass of Democrats will vote for the Democratic nominee, and he will poll a large vote (and the Democrats will almost surely gain members of the House of Representatives), there are strong factions in the party. Many Cleveland Democrats — sound-money men — will vote for Mr. Taft; and many more will not vote at all. The business world does not trust Mr. Bryan's judgment as it trusts Mr. Taft's; and, when partisanship is weak, this financial and commercial distrust will cost the Democratic Presidential ticket many votes. For this reason and for others there seems no doubt — if a prophecy may be ventured — of Mr. Taft's election.

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MR. J. P. MORGAN EX-JUDGE HOWLAND OF NEW YORK MR. TAFT

MR. TAFT AFTER RECEIVING AN HONORARY DEGREE AT YALE

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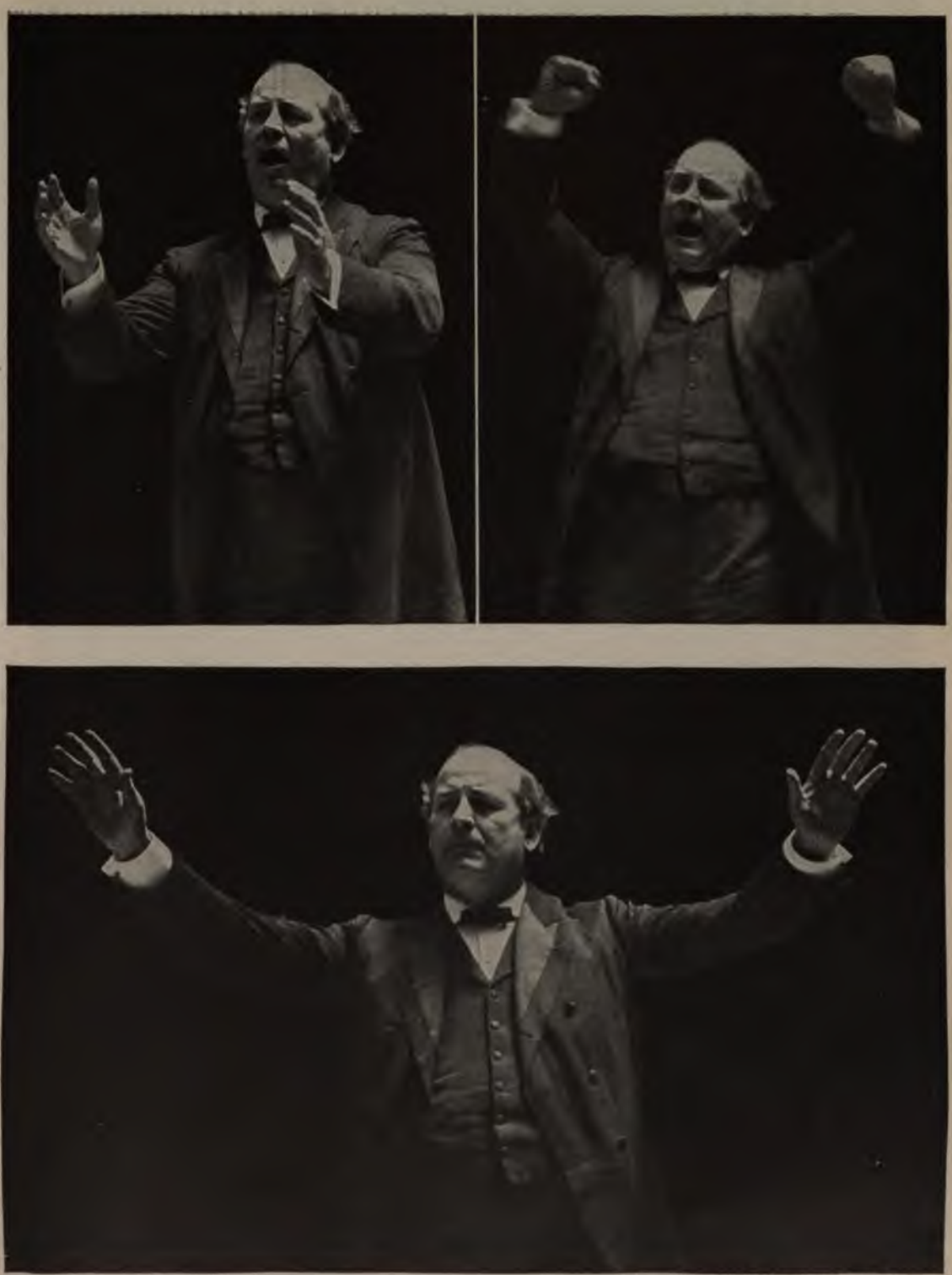
MR. TAFT MR. SHERMAN

THE REPUBLICAN CANDIDATES



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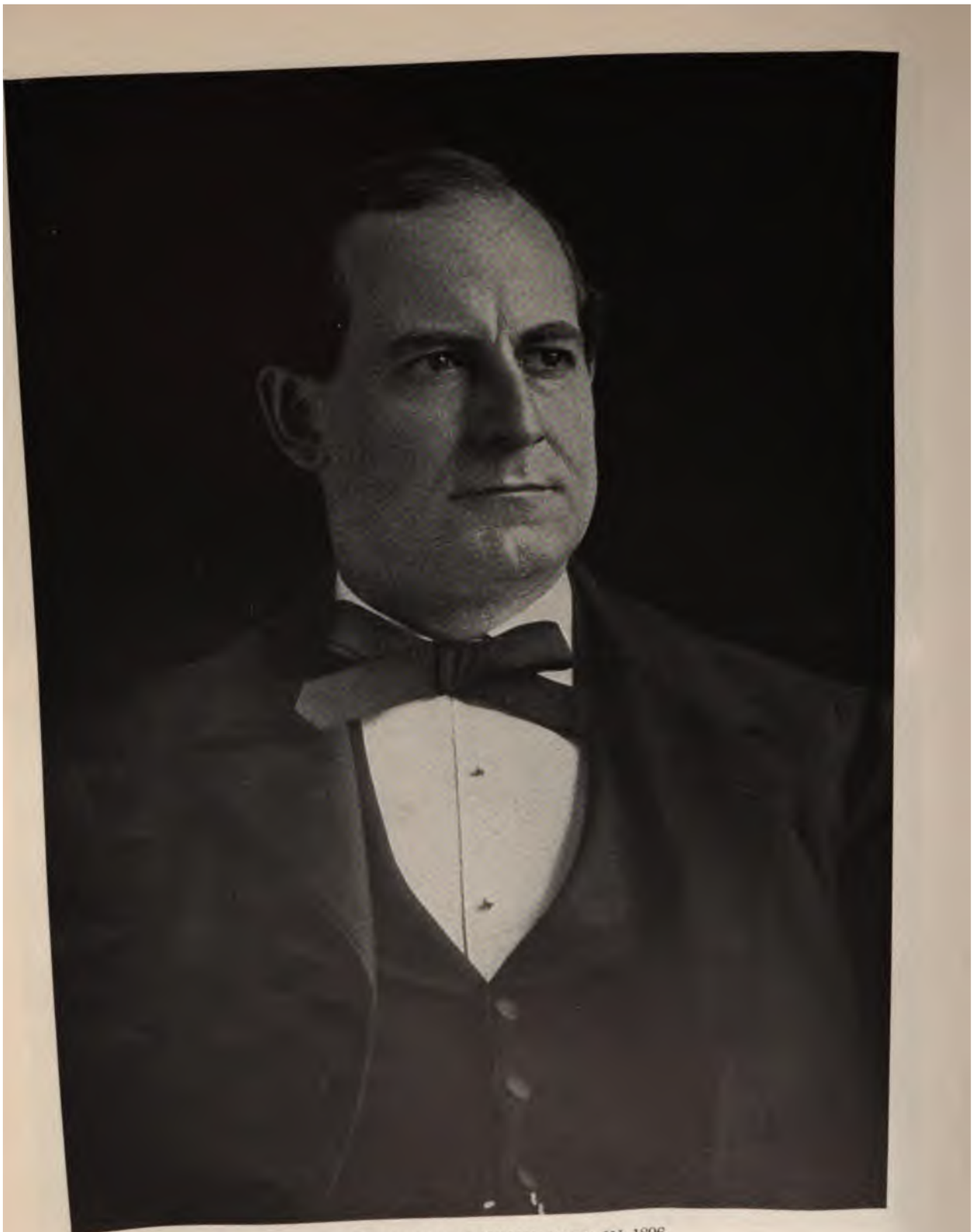
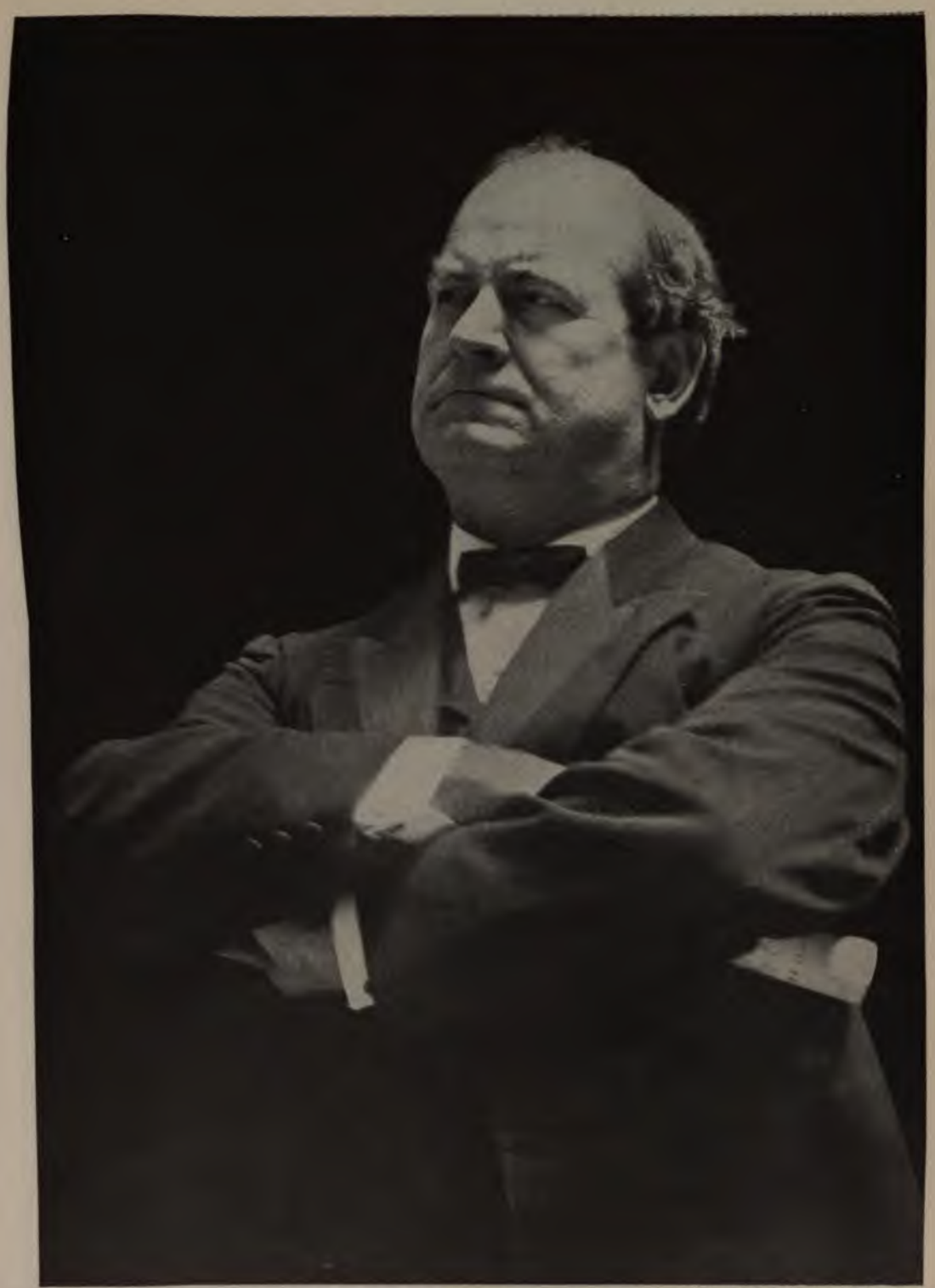
MR. BRYAN, IN ACTION



MR. BRYAN, WHEN NOMINATED IN 1896

THESE PHOTOGRAPHS SHOW THE CHANGE IN APPEARANCE THAT TWELVE



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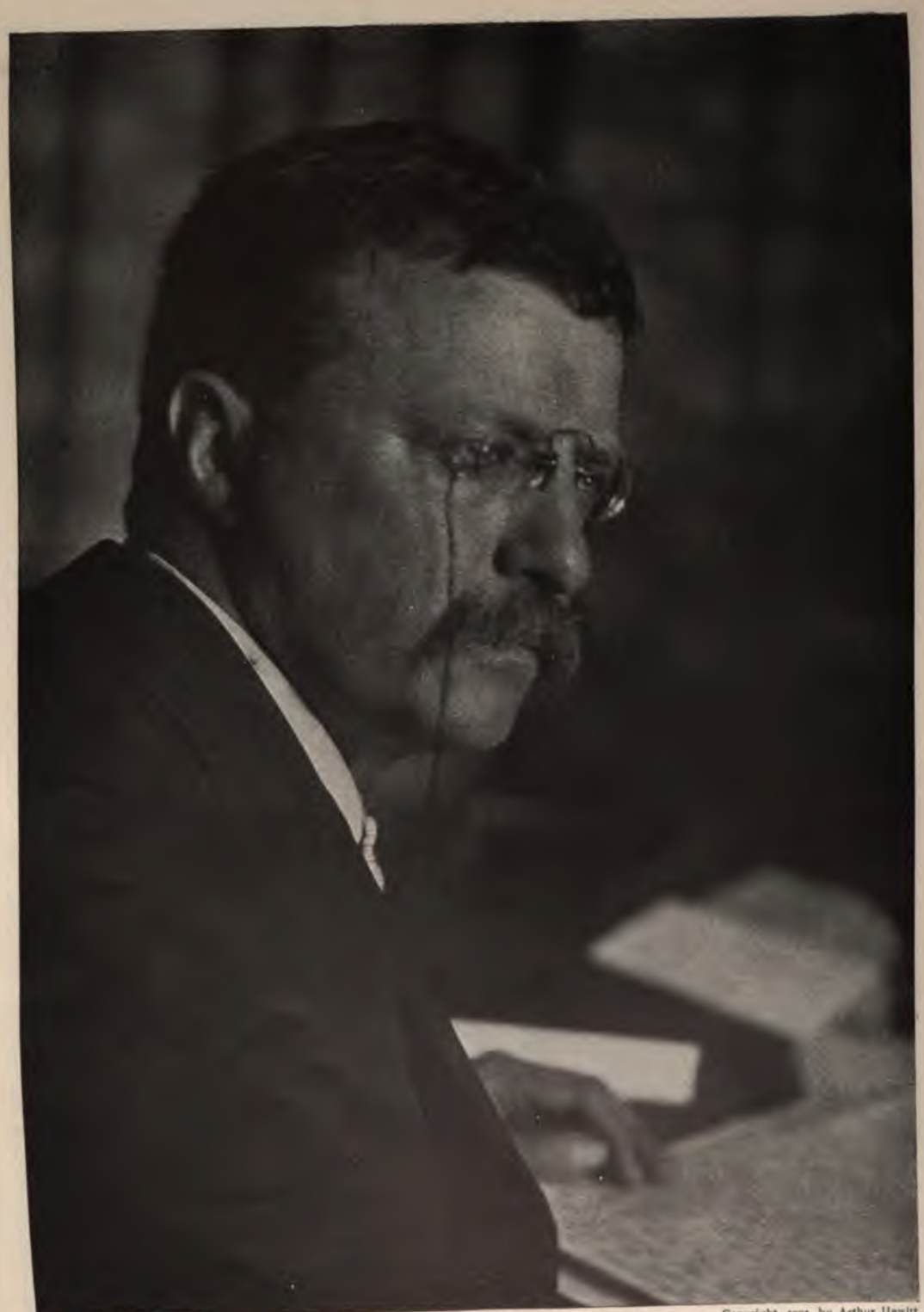
MR. BRYAN TO-DAY, TWELVE YEARS AFTER HIS FIRST NOMINATION

YEARS OF CAMPAIGNING AND LECTURING HAVE MADE IN MR. BRYAN



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PRESIDENT ROOSEVELT, WHEN HE ENTERED OFFICE IN 1901

IT IS INTERESTING TO OBSERVE HOW LITTLE MARK THE

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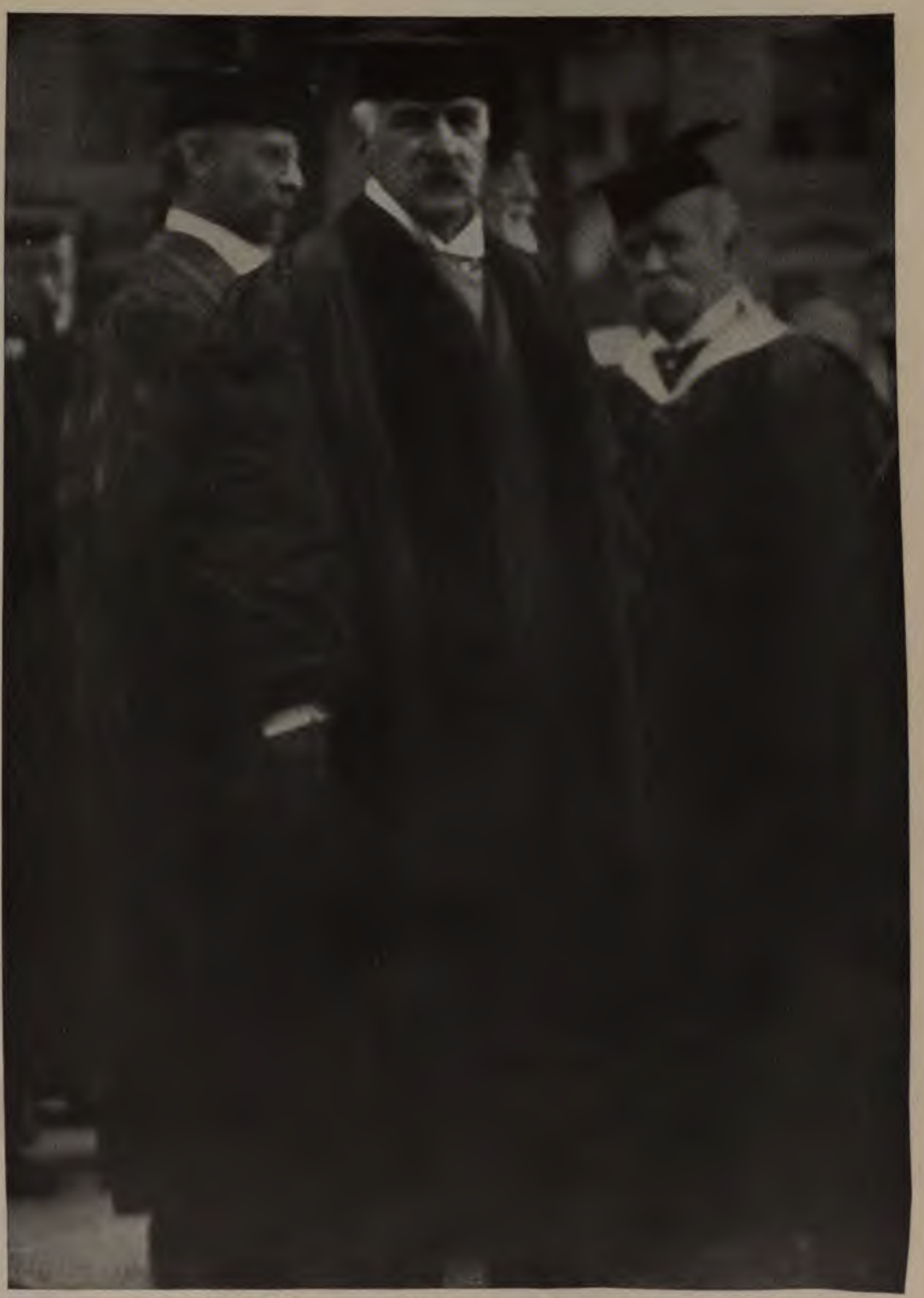
THE LAST PHOTOGRAPH OF MR. CLEVELAND, TAKEN FOUR MONTHS BEFORE HIS DEATH



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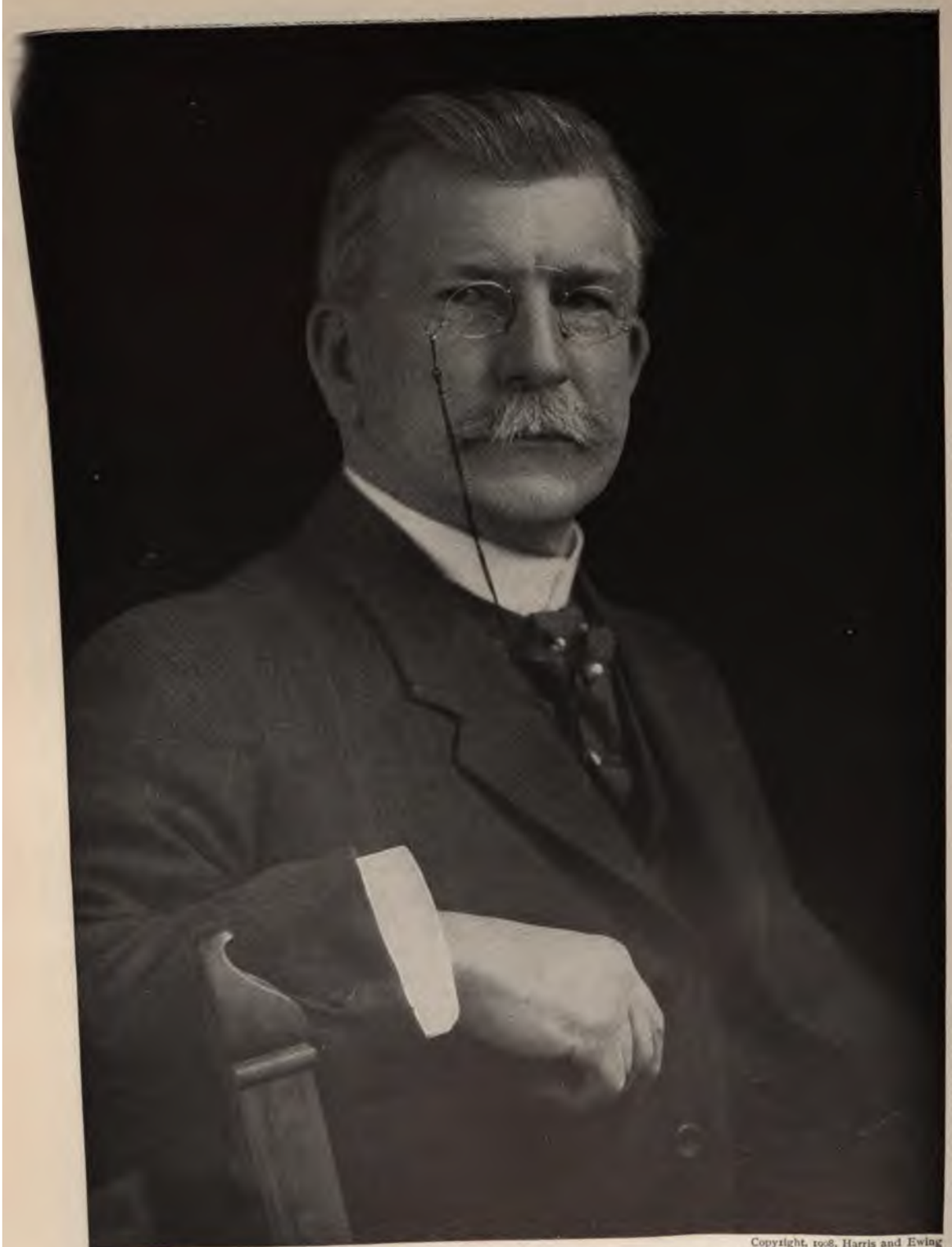

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FORMERLY GOVERNOR-GENERAL OF THE PHILIPPINES AND AMBASSADOR TO JAPAN

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W. CAMERON FORBES, OF MASSACHUSETTS

SINCE 1904 A MEMBER OF THE PHILIPPINE COMMISSION AND LATELY APPOINTED VICE-GOVERNOR

THE AEROPLANE "JUNE BUG" IN FLIGHT AT HAMMONDSPORT, N. Y., JULY 4TH.

THE MACHINE FLEW IN A CIRCLE FOR A MILE

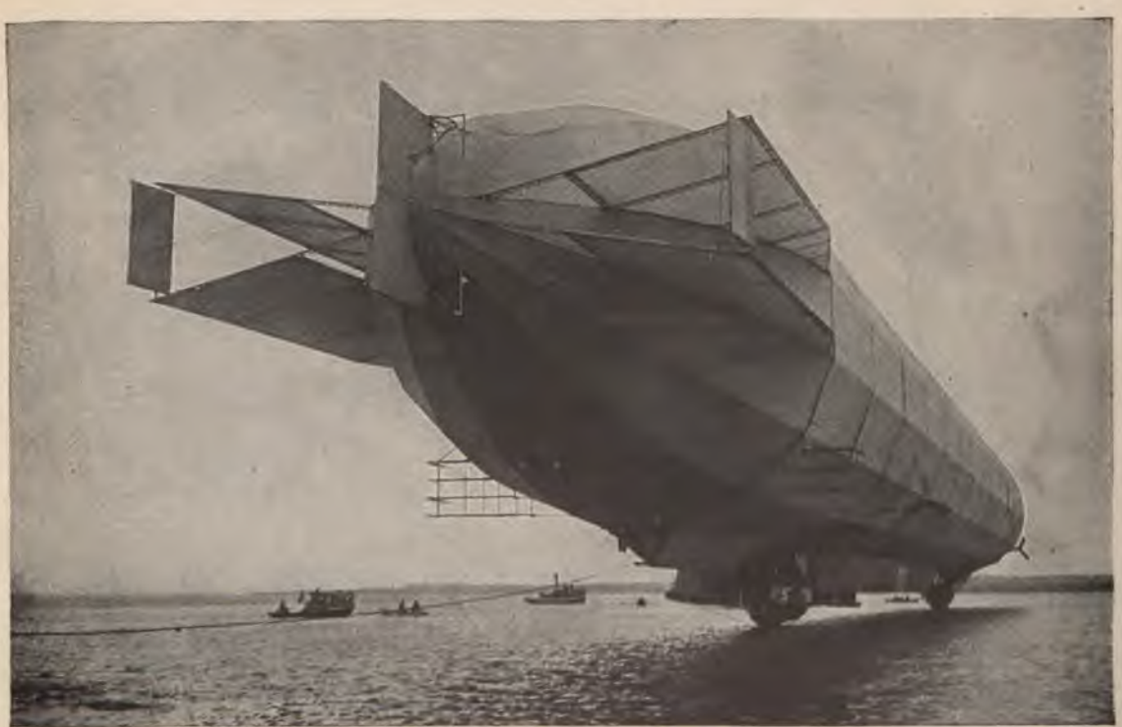
MR. G. H. CURTISS AT THE WHEEL OF THE "JUNE BUG"

HIS FOURTH OF JULY PERFORMANCE WAS THE FIRST LONG PUBLIC FLIGHT IN AN AEROPLANE IN THE UNITED STATES

THE "JUNE BUG" ON THE ROAD BEFORE THE TRIAL

THE AEROPLANE DURING THE TRIAL

MR. CURTISS, THE BUILDER, IS A MEMBER OF THE AERIAL EXPERIMENT ASSOCIATION AT HAMMONDSPORT, WHICH IS UNDER THE LEADERSHIP OF DR. ALEXANDER GRAHAM BELL



THE DIRIGIBLE BALLOON OF COUNT ZEPPELIN, ON LAKE CONSTANCE

WHICH ON JULY 1ST SAILED FOR TWELVE HOURS OVER THE MOUNTAINS, VALLEYS, AND LAKES OF THE SWISS-GERMAN FRONTIER, CARRYING A CREW OF A DOZEN MEN AND TWELVE PASSENGERS

MEN NOW, RATHER THAN PARTIES

WE HAVE in fact come to a very peculiar condition of political parties, such a condition as men now living have not before seen. Consider their recent history, from an independent point of view.

The Democratic party under Mr. Cleveland won two victories — and they were moral victories — because it fought against industrial and political privileges. No man has a right to governmental favor in his business — that was the meaning of the Cleveland campaigns, and it squared with the historic doctrines of the party. But the radical faction of the party got control of it — the advocates of unsound currency.

Many of the leaders of the Republican party were tarred with the same stick; and their party stood also for special privileges, as the Democratic party did not.

At this juncture, the question which party should win for a long period became, in a peculiar way, a question of leadership. Then the McKinley-Bryan campaign came on. If Mr. Bryan could have held his party intact, that is, if his theories of currency had not driven many Democrats away from him, he would probably have defeated Mr. McKinley. He stood a good chance of defeating Mr. McKinley as it was, if it had not been for the effective practical management of the Republican campaign by Mr. Hanna. He not only managed the campaign as a great captain manages an army and as a great financier manages a corporation and as a strong promoter carries a big enterprise to success (he begged and he "bled" the beneficiaries of governmental favor); but he did more than this practical, managerial task. He turned the Republican party definitely to the policy of a sound currency; for Mr. McKinley himself had once been of uncertain mind. But now the old wavering disappeared.

Thus the committal of the Republican party to sound finance, at the same time that Mr. Bryan committed the Democrats to his unsound theory, gave the Republicans a clear lead — the same kind of a moral lead that Mr. Cleveland had given to the Democrats; and this in spite of the Republican attitude on the tariff.

And the leadership of the two parties continued to emphasize this divergence. Mr. McKinley grew in the Presidential office, as, perhaps, no other man ever did. The strong traits of his character won not only his own partisans but an increasing number of his old opponents. He developed high qualities of leadership himself, and the people had come to regard him affectionately even before his death gave him a permanent place in universal esteem.

In the meantime, the war with Spain strengthened the party in power; and Mr. Bryan made another blunder in trying to create an issue of "anti-imperialism." During all these years, too, no other Democratic leader appeared. Judge Parker showed no qualities of leadership. But the death of President McKinley put into the White House one of the strongest personalities that ever wielded the power of the great office. During these seven years of his multifarious activities, party lines have become dimmer than ever. An intelligent foreign observer — the London *Times* — lately declared that Mr. Roosevelt's greatest triumph has been the practical obliteration of our parties. That is an overstatement, but the kernel of it is true.

Thus the Republican party has had the good fortune, since its last defeat by Mr. Cleveland, to get rid of the taint of unsound money, and to have the leadership of these very remarkable and very diverse men — Hanna, McKinley, Roosevelt, and Taft. But during the same period the Democratic party has had only Mr. Bryan; and, many "issues" as he has put forward, he has kept in line only those who are "infatuated with the visage of defeat." That has been hard fortune for his party.

This, therefore, is an unusual chapter in party history; for it is a chapter of personalities rather than of party principles — or, more accurately, of principles as they have been embodied in men rather than in platforms. And this is the reason why most men this year will vote for Bryan or for Taft rather than as Democrats or as Republicans.

MR. BRYAN'S POWER AND PUBLIC SERVICE

YET any student of contemporary events or of party history who should conclude that Mr. Bryan has been an unsuccessful leader and nothing more would fall into a serious error. He has been a misfortune to the Democratic party, but he has not been a misfortune to the country. He has been the champion of the unthoughtful and the economically muddled, but he has been the champion also of the neglected and forgotten classes and of the victims of special privilege.

It is hard for these classes to find a voice in times of prosperity. But we have these classes even in such times. It is his sympathy for the unsuccessful man — whether failure be his fault or his misfortune, or the fault of society or of government — that has won him so strong and so strange a following; for it is a following that long ago ceased to be political and became personal. Millions of men regard him with admiration and affection; and their loyalty to him is the same whether he favor free silver or the government ownership of railroads, or whatever he favor. It has nothing to do with public policies. He may take up or he may discard any political or economic doctrine that he will (and he has already had a large experience in this way), and his following and his influence over them is in no way affected.

Men who believe in him believe that he stands for the common man — the commonest kind of man — for the forgotten, for the unprivileged; and that, somehow, he would help, if he should become President, to make their lot better. If he were a candidate for a bishopric, they would believe the same thing. For he is a preacher, the most popular preacher of our time. He is a voice for those who speak ineffectively for themselves. Thus he has caused the Republican party to do many things that, but for fear of him or of worse, it would not have done; and some of them have been exceedingly good things. He has had much to do with keeping its arrogance of power within bounds.

And Mr. Bryan during these later years has had to contend against not political managers only but as good popular preachers as he himself is. President McKinley was such a man. His sermons from the stump and in public documents were most effective. And an even greater and louder preacher has since then arisen against him. If Mr. Bryan had had the public pulpit alone these twelve years, he might have preached his way into the White House. But the people have had a chance to divide into two congregations and each has had the stirring and the consoling effects of much moral exhortation.

During a year when we are expressing ourselves oftenest in political phraseology, it is easy to forget the power that straight, vigorous preaching has. The American public was reared on it from the beginning. For generation after generation the preacher was the great man in our life; and, if the pulpit seem to-day to have fewer commanding men than it once had, it has more men of a fair degree of power, and the masses are as much swayed by the exhorter, perhaps, as the masses ever were. It makes little practical difference whether he preach from a pulpit or from the White House or from the prairies of Nebraska; for preaching is preaching, and the masses, even if they seem careless of the pulpit, are yet mightily swayed by vigorous moral exhortation.

CAN MR. TAFT BREAK THE SOLID SOUTH?

IT SO happened that the first speech which may fairly be called a campaign speech made by Mr. Taft was a few sentences spoken from the platform of a car to a crowd at a Virginian railroad station; and he told his hearers that, if they could break the solid South, they would do a great good to the nation.

Very true; and more than that — there is a fighting chance that Tennessee or North Carolina may be carried by Mr. Taft — a fighting chance rather than a probability perhaps, but surely a chance good enough to warrant a stiff fight. The old reasons for Democratic solidity no longer exist. There is no longer danger of "Negro supremacy"; there is no longer danger of a force bill; there is no "danger" of any sort in voting for Mr. Taft against Mr. Bryan. The only party difference in doctrine is the difference on the tariff; and that is at present a theoretical rather than a practical difference, because Mr. Taft is in favor of some reductions and a Democratic President could not cause very sweeping reductions until an income-tax could be framed that should stand the test of the Supreme Court. Meantime, there are more pressing reasons why many business men in the South prefer Mr. Taft to Mr. Bryan, the foremost of which is their lack of confidence in Mr. Bryan's judgment. At some time he has done violence in his declarations of purpose to very nearly every sound business and financial principle; and the business men of the South are now by far more influential than they have before been since the Civil War. They have built and are building the new prosperity of that part of the Union; they are closely allied in interests and in thought with financial and commercial men in other parts of the country; and they have broader

views of affairs and of financial and political policies than the politicians have.

The upland part of the South was a stronghold of the Whig party, and the Republicanism of Mr. Taft is closely akin to the old Whig party. There would, therefore, be no violent change for the men of this generation to go back to the political faith of their fathers.

Most of all, the more liberal men of these states are very tired of being counted as sheep by their political leaders. Many of them showed, by voting for Palmer and Buckner, that they distrusted Mr. Bryan. They have surely not recanted. Many of them protested against his second nomination and even more earnestly against his third nomination; and their protests were unheeded. They were regarded by the political managers as of no account — were practically suppressed.

These forces that make against a continuation of Southern solidity would at the last Presidential election have carried some of these Southern states for Mr. Roosevelt if his party had had even a decent pretense of respectable management in the South; for in most of these states the Republican managers have been merely disgraceful office-brokers, and even Mr. Roosevelt, with his wish to break the solid South and with his popularity among the Southern people, did not succeed in changing the character of these organizations. If men of standing and of energy take the party in hand in such states as North Carolina and Tennessee, they can be carried against a Bryanized Democratic party in 1912, if not this year.

And such a breach in the South would be the best possible thing for the Democratic party. It would force it to develop leaders of a new and more vigorous kind. In fact, a very large number of the Southern Democratic leaders and newspapers were opposed to Mr. Bryan's nomination. Most of them will support him for reasons of party regularity; but the support of some of the strongest of them will be only perfunctory.

A SOUTHERN SECRETARY OF WAR

THE appointment of Mr. Luke E. Wright, of Tennessee, to succeed Mr. Taft as Secretary of War has a double political meaning — it indicates Mr. Roosevelt's encouraging attitude toward liberal political views in the South, and no doubt it hints with equal plainness of Mr. Taft's attitude. If fit men in the Southern States by their services and by their liberality of opinion put themselves in the way of recognition and influence, recognition and influence and opportunities for wide public uesfulness will come to them.

Mr. Wright comes of Southern stock; his father sat on the supreme bench of Tennessee; and as a boy he entered the Confederate army and distinguished himself as a soldier. The story is told that when word was brought to him during the battle of Stone River that his brother had been killed, he ordered the messenger to carry his body to the rear, and did not turn back himself. After the war he became a lawyer in Memphis; then prosecuting attorney of the county ("attorney-general" of the county, they call it in Tennessee); and his official life gave him frequent occasion to show his courage. Once he prevented a lynching by vigorous speech.

In 1896, having all his life been a Democrat, he supported Palmer and Buckner. Four years later he was appointed by President McKinley as a member of the Philippine Commission. In this service he rose by successive promotions to be Governor-General of the Philippines, succeeding Mr. Taft; and two years ago he became our first Ambassador to Japan. After a year's service he returned to Memphis and again took up the law.

The disadvantage of the political solidity of the South is that it prevents many of its able men — men like Mr. Wright — from seeing national problems and from becoming interested in large policies. His experience in the Philippines gave him a larger outlook on national tasks and opportunities than men can have under cover of a "solid" party provincialism. The mere partisan difference between a Republican and a Democrat sinks into insignificance in the presence of such a wider experience and wider vision.

TWO POLITICAL PROMISES

ON NOVEMBER 7, 1900, just after Mr. Bryan's defeat the second time by Mr. McKinley, he sent the following telegram to Mr. J. F. Merrill, of Kansas City:

"Thank you for your telegram of condolence. The defeat was a severe one; you all did nobly. I cannot conscientiously ask the party to consider me again for the Presidency. I led them to defeat four years ago and that ought to be enough for any one man."

Yet four years later — at St. Louis in 1904 — he was present at the National Democratic convention, not perhaps openly seeking the nomination but surely embarrassing the convention in its effort to select a strong sound-money candidate, and willing (if it should so turn out) to run again; and, since that time, he openly sought a third nomination continuously till the convention met.

On the night of Mr. Roosevelt's election to the Presidency he gave out this statement to the public:

"On the fourth of March next I shall have served three and one-half years, and this three and one-half years constitutes my first term. The wise custom which limits the President to two terms regards the substance and not the form. Under no circumstances will I be a candidate for or accept another nomination."

There is a technical difference between the two statements. One was made directly only to an individual, and the other was made, as it were, directly to the whole people. But this is a technical rather than a real difference. Andthere is a very real difference between the ways in which these two men kept these voluntary promises.

A PERSONALLY CLEAN CAMPAIGN

IT IS a matter of congratulation that the campaign will be a campaign not only of decency but of dignity. The personal character of the candidates puts it on that level, and their bearing will keep it so. This may be called a negative virtue, but it is a very real one. It is of inestimable value that no campaign orator or newspaper can have an excuse to indulge in scandal or in personal abuse.

More than this can be said. Both candidates deport themselves as simple American gentlemen. There is no pomp or affectation, no display of wealth (for neither is a rich man), no personal provocation to a division of the people into social classes. In these ways the campaign has begun and will end as befits us — a personally clean contest of good feeling.

DO CONVENTIONS REFLECT PUBLIC OPINION?

THE national political conventions take on more and more the character of great howling shows, with prearranged hours of applause, with armies of marching men carrying banners and pictorial devices, with especial yells and songs written for the occasion, with elaborate demonstrations in favor of candidates, and with an ever-increasing number of novel devices to create a public furor.

Yet, in spite of these things, the conventions, unwieldy mobs as they are, continue to act pretty accurately as the managers of the parties direct. There is no doubt that both at Denver and at Chicago the men were nominated for the Presidency whom the managers of each party preferred; and all the diversions of those who wished to produce different results had no effect. And there is no reason, in either of these cases, to suppose that the public opinion of the parties desired different candidates. If it did, it made no such desire known. The managers seem to have had (as nearly as they ever have) the masses of their parties behind them, or in good control.

If the nominations for the vice-Presidency were made by trades and for other reasons than the highest fitness to succeed to the Presidency, this may be laid at the door of public sentiment; for the public sentiment of neither party took the trouble, before the conventions met, even seriously to discuss men for this post.

After all, huge and noisy and apparently lawless as these great conventions have become, they yet seem to be as good a rough expression of the public will of each party as the parties have ever had or can hope to have. Both Mr. Taft and Mr. Bryan were demanded or accepted by their parties months before the conventions met, and there was at no time any serious probability that any other result would be reached.

THE PASSING OF A GREAT PERSONALITY

MR. CLEVELAND, while Mayor of Buffalo, declaring with invincible directness that men who would not pilfer private money had no hesitation in misappropriating public funds, and thereby setting a high standard for municipal government; Mr. Cleveland, as Governor of New York, provoking the despair of political workers because, as one of them declared in a famous phrase: "What can you do with such a man? he wants nothing"; then Mr. Cleveland as President sending a radical tariff reform message against the advice of all the political managers; insisting on civil-service reform against the hungry cry of his party; maintaining

the credit of the Government by vetoing bad money measures and by the purchase of gold from a syndicate organized by Mr. Morgan, whereby he incurred the savage criticism of all greenbackers and unsound-money men of whatever feather and forfeited the loyalty of his own party; again vetoing hundreds and hundreds of private pension bills because a little bill that is bad is as bad as a bad big bill; again suffering and even provoking defeat rather than make compromise on tariff reform or on sound currency; then receiving a third nomination not because he sought it but because he had shown these qualities of courage and stability of conviction; again giving the Monroe doctrine a new lease of life — keeping it vital — by a courageous reminder to Great Britain in the Venezuelan dispute, which Great Britain took; at last going out of office amid the ungrateful denunciation of his own party, then swept off its feet by the craze for unsound money, and settling down in a quiet academic town to await, with dignity and serenity, the just judgment of the people — a just judgment that came in full measure even before his death.

It was a full, well-rounded career—the career of one of the strongest personalities in modern political life and of one of the three or four of our really great Presidents, of a man of unwavering convictions and of the stanchest courage. That is the kind of man that reflects glory on American life, and whose memory all sturdy Americans honor and revere, irrespective to party or creed.

"UNCLE REMUS," AS AN IMMORTAL

IT IS an interesting fact to recall, now that Mr. Joel Chandler Harris is dead, that the popularity of "Uncle Remus" greatly surprised him, and that he never quite understood it. The stories were familiar to all Southern people; some of them had been written down before Mr. Harris was born; some of them, indeed, appear in almost all languages and are but part of the general folk-lore of many races; and pretentious and self-conscious literary use of some of them had been made and is yet now and then made. Why, then, when he did nothing more than transcribe them for the Atlanta *Constitution*, writing them down as a part of the day's routine newspaper work, did they begin to travel around the world, and when put in book form become a sort of classic?

Mr. Harris had only this right to them — the right that genius has to anything that it seizes on and makes a joy forever. In this case it was the divine right of a perfect self-restraint. Perhaps there is no more difficult task in literature than to tell a simple story simply. That he did, and he did it with such high art that he was unconscious of any art at all.

Modest — even painfully shy — of homely looks and ways and speech, as sincere a soul as ever lived, a man of high, humble thought, of clear literary judgments, home-keeping, given to brooding but full of humor, loving the soil and all that grew out of it and all that lived on it, when he prematurely passed there went from us one of the few men whose skill in speech was fundamental and whose "mere transcription" of the folk-lore of the Negroes will give delight as long as American childhood is genuine. "Uncle Remus" is as sure of immortality as any creation of our literature.

THE SOLVING OF AËRIAL NAVIGATION

THE problem of aërial navigation is solved. The practical airship that may be used by anybody for pleasure or for commercial purposes has not yet come; but we may have it sooner than you imagine. We are, perhaps, no further from it than we were from the general use of steamboats when Fulton made his first demonstration or than we were from the general use of the bicycle when the first high-wheel machine was used.

Already airships are sufficiently practical to be of use in war; and, if a war should break out, the belligerent Governments would use them instantly. For war use the dirigible balloon would come at once into service.

The German dirigible war balloon, upon which Count Zeppelin has been at work, on July 1st sailed for twelve hours over the forests, valleys, and lakes of the German-Swiss frontier, carrying a crew of a dozen men and twelve passengers. It headed directly against winds, withstood sudden gusts, and flew at the speed of an express train in running with them. This particular airship became at once a subject of serious consideration by the statesmen of all Europe. This was a public demonstration; and private experiments are all the while carried on by other Governments.

In the United States, the principal work in aëronautics is with aëroplanes. The Aërial Experiment Association is helping to develop the aëroplane by open work of experimentation at Hammondsport, N. Y., under the leadership

of that veteran inventor and enthusiast, Dr. Alexander Graham Bell. The little town has become a sort of institution. It has become a centre for airship development and construction whither inventors of flying machines and students of the fascinating new science go. The Experiment Association, founded and financed by Mrs. Bell, studies and tries new ideas in the construction of flying machines of all kinds. The aëroplane *June Bug*, which Mr. G. H. Curtiss of the Association designed, flew a mile on July 4th, the first long public flight of an aëroplane in America. Although this aëroplane is probably not to be classed with the finished machines that the Wright brothers and Mr. A. M. Herring will presently have at Fort Myer, Va., at the tests for the Government, Mr. Curtiss was able to make a complete circle with it, and failed to make a second turn only because he had not yet learned to judge the exact angle at which to tip the machine. Mr. Curtiss improved so much upon a quarter-mile straight flight made two weeks before that his success probably proves that aëroplanes may soon be manufactured upon which flights near the ground will be safe and easy for persons of ordinary skill. Under a forfeit of a considerable sum of money, the Wright brothers and Mr. Herring must deliver to the Government aëroplanes that at the Fort Myer test can fly for an hour with two men and a gasoline supply for 125 miles, making for a given distance a speed of forty miles an hour.

FRUGAL TOWNSMEN AND SPENDING FARMERS

IT IS quite impossible to measure the saving of a great people when that people begins to economize. But perhaps no other single item available is more suggestive of the frugality of the last half-year than the shrinkage of about $10,000,000 in the Government's receipts from customs and internal revenues. Out of four dollars received in May, 1907, from customs receipts, the Government lost more than a dollar in May, 1908. The big shrinkage was in luxuries. The French dressmakers, the Italian wine merchants, the continental jewelers sold us less of their wares. The American consumer cut down his expenses by cutting out the foreign goods that cost, perhaps, a fourth more than the corresponding domestic product.

How much of such reductions was forced by the fall of incomes and of salaries and the shutting down of great industries no one may measure; but it is plain that the spirit of economy has gone much farther than the actual loss of income. The summer resorts give similar evidence. Along one very popular lake, the cheaper and middle-priced hotels and boarding-houses this summer are doing a better business than usual, but the high-priced hotels, at which one had to engage rooms months ahead in 1906 and 1907, have lost patronage. It is a fair inference that many persons who used to go to these are this year taking quarters not perhaps less comfortable but less luxurious.

But there are some interesting exceptions to the general rule of greater economy in spending and living. For instance, a large piano dealer declares that he is selling fewer pianos to the rich than he sold last year, but that the farmers are buying nearly twice as many as they bought in 1907. The centre of this business is swinging away from the cities and into the rural communities. The farmer had good crops last year; he sold them at the best prices on record; and he seems likely to have the same experience this year. If he can afford to buy a piano, nobody begrudges him. Not only does he deserve it, but he lays the foundation for the prosperity of other classes of workers as well.

A DAZZLING FUTURE FOR THE FARMER

AND an even greater opportunity awaits the American farmer. Mr. Hays, the Assistant-Secretary of Agriculture, reminds us in his article in this magazine on "The American Farmer Feeding the World," that a shortage in the wheat crop of our Western States may cause hunger on the Ganges or the Yangtsekiang. Still, the American farmer's first duty is to feed the American people. While his surplus which is sold abroad is enormously large when measured in dollars, it is very small when compared with the quantities consumed within the United States. We consume seven-eighths of all that the farmer produces. With the increase of population our farms must produce a great deal more — how much more few men have realized. Mr. James J. Hill has made the following estimate of our future population: in 1910, 95 millions; in 1920, 117 millions; in 1930, 142 millions; in 1940, 170 millions; in 1950, 200 millions. All these must be fed from the farm. And this hints of the farmers' great future.

The Department of Agriculture finds that our yearly consumption of agricultural products is, broadly speaking, $60 per capita at the present time. On this basis, using Mr. Hill's estimates of the population, the value of farm products needed for home consumption will be about as follows: In 1920, 7 billions of dollars: in 1930, 8½ billions, in 1940, 10 billions, in 1950, 12 billions.

The farmer will have the task of raising twelve billions of dollars' worth of agricultural products for our own use in 1950, and something over for the hungry multitudes in less productive parts of the world. The Department of Agriculture outlines the way in which this may be brought about:

(1) We must add two-thirds to our farm acreage. In 1900 we had about 840 million acres in farms, of which 415 million acres were productive and 425 million unimproved. The year 1950 will probably demand an improved acreage of 700 million acres.

(2) We must also add two-thirds to our product per acre — that is, we must increase the average from $11 to $20 per acre. This is, perhaps, the more serious problem. The Department proposes to solve it by teaching the farmer to farm.

To what extent the farmer's profit will increase, one economist may guess as well as another. But, as the demand made on every acre becomes severer, better culture will be likely to bring larger and larger net profits. It may be that, in the future, farming will become the most profitable of the industries.

HOW THRIFT GETS THE BETTER OF BAD TIMES

WHILE business is yet below the normal and the wages or the work of many workers is cut, it is a pleasure to record that every savings bank in New York City but one has set its annual interest rate for the current six months at 4 per cent. In many cases that is an advance of one half of 1 per cent. over the rate in the previous six months; and in general it is an advance over the rates of two years ago, when most of the banks paid their depositors 3 or 3½ per cent.

Thus the thrifty, whether they have little or much, gain by the disaster of the many. The chief reason for raising the savings-banks' interest rates is the low prices of high-class bonds. The high interest-rate on mortgages has made it possible for these very conservative savings banks to get larger returns from their money by lending it on mortgages than by buying bonds; and the depositors share in that prosperity.

There is no financial institution in our land that deserves more praise and support than the savings bank, under strict regulation and good management. It is pleasant now to recall that Mr. Cleveland, while he was Governor of New York, earned the gratitude of the people of the state by his veto of a measure that might have weakened the safeguards of these banks. The principle upon which he based his veto has become a fixed policy, in law and in practice — that the savings of this people shall be sacred.

A POSSIBLE GREAT RAILROAD LABOR WAR

A DOZEN great railroads have reduced their dividends, thereby cutting off part of the revenue of the stockholders. Among them are such standard roads as the Pennsylvania, the New York Central, the Norfolk & Western, and the Atchison, Topeka, & Santa Fé. The dividends that some of them formerly paid ought never to have been so high, and the reductions are simply corrections of error. But in every case the reduction was caused by loss of revenues.

Meantime, railroad labor has continued to receive practically its former wages. It has been possible for the railroads to lay off a great many men in the yards, and even in the shops, and this, too, without provoking a labor war. But the intention to cut the wages of organized railroad labor in the spring was abandoned, partly because the railroads did not wish — and did not dare — to bring about a conflict, and partly because they knew that they would be opposed not merely by organized labor but also by the politicians in this election year.

The laborer and the investor are theoretically partners in the railroad business. They are supposed to share alike in the profits of good times, and in the losses of bad times. From the beginning of the good times, the labor cry was for an equal share in the profits, and labor carried its point. Wages moved up steadily. In some cases the stockholder received a larger increase than the laborer, but, in most cases, the increase in pay-rolls was proportionately larger than the increase in dividends.

But now dividends have come down. Yet wages, say Mr. Gompers and the politicians, must not come down. The labor unions stand

against reductions of income that have overtaken most other classes. In the main they have succeeded, although there has been a considerable reduction of the number employed. As the repair-shop dropped to half-time, men had to seek jobs elsewhere. As the road-gang was lessened, more men sought markets for their labor. Thus, gradually, idle laborers increased. But for the savings of their men, the unions would now, perhaps, face a dilemma that is, sooner or later, inevitable. The danger may be averted this year. Perhaps the crops will make heavy demands for laborers. Already thousands of men are going back to the shops to put the cars in commission for hauling them. But suppose that prosperity returns next year, what then?

The stockholders' dividends will again begin to go up to the level of 1907. But the wages are already as great as they were in prosperous times. Will the worker still demand that with every increase of dividends his rate of wages shall advance? Most likely he will. If he do, he will, in effect, demand that he be not a partner with the stockholder, on the old basis, but, as it were, a preferred partner, insisting that his revenue continue alike through hard times and good, even though the stockholder pay the bill in hard times.

Many students of railroad economics fear a severe clash of these forces at the next industrial crisis — probably with the next crop failure. Meantime labor now has the railroads at a disadvantage and such a situation is likely at some time to cause great trouble, for neither labor unions nor politicians can permanently thwart great economic forces.

THE MANUFACTURER AND HIS OPPORTUNITY

IT SEEMS good to us in this Overseas Number to say a few words in sober earnestness to the American manufacturer.

In many respects you are the most favored manufacturer in the world. You carry on your business in a country whose laws not only protect it but foster it — many people think that they have fostered it to an unwarranted degree. Most of the materials from which your goods are made come from our own soil, while your foreign competitor is often compelled to buy his materials in our market and then pay the freight across the Atlantic. No country is more blessed with the power to turn factory wheels. Even the labor problem works out in your favor, though you may be forced to pay higher wages. You get more for your money; your workmen are of a higher grade and they produce more for what they get. Besides, immigration is constantly placing at your service some of the very men whose work has helped to build the export trade of Europe. Their skill in manufacture becomes yours. Meanwhile, in inventive genius and commercial daring you recognize no superiors. All in all, it looks as if the odds were mostly in your favor. Certainly you can make goods as well and as cheaply as anybody else.

II

If you make a product of general use and do not sell it all over the world, you cannot lay blame on the scarcity of markets. You made a great mistake if you laid aside your geography along with your other schoolbooks; for commercial geography is one of the most fascinating studies in the world to a man with a useful article to sell. Do you make things to eat or to wear? Look at each of the continents in turn and see what a small percentage of what they eat and wear is made by themselves. Do you make some sort of a tool or machine to work with? Look at Asia, at Africa, at South America, and see how few factories of any kind are there at work. These continents are great markets because they have not reached the stage of civilization where they have factories of their own. On the other hand, Europe and Australia are great markets because they have advanced to a state of civilization where they want a great many things that they cannot profitably make for themselves. The whole wide world, therefore, is your market — if you are a manufacturer with an imagination.

III

If the products of your factories are not represented in the growing list of American exports, you certainly cannot blame the shipping facilities. Grant that we have no great mercantile marine of our own: what of that? The harbors are full of boats ready to take your goods anywhere and at reasonable rates. Here are some interesting facts about shipping facilities, and they are offered not so much for information as for stimulus:

(1) In the article on "The Freighters of the Seas" your attention is called to the fact that the greatest fleet in existence touches

the shores of the United States at nine points and places at your command, directly or indirectly, its 376 ships operating 68 distinct services, offering to give you a through bill of lading to every important port in the world. If you are so modest in your ambition as to aspire to make use only of the vessels of this one fleet, your factories and your shipping clerks will nevertheless have a busy time.

(2) Take another unit of transportation — the sailing-list of a single firm of shipping agents, referred to in the article on "American Trading Around the World." It shows that in one month you might have shipped your goods through this firm in 220 vessels leaving New York City and 97 vessels sailing from other American ports — an average of more than ten a day. A manufacturer with an ambition large enough to utilize even this unit of transportation would make something of a stir in the world.

(3) For the manufacturer with an ambition yet more colossal, this horizon widens out to infinity. These 317 steamers from the United States went mostly to European ports, there to connect with other lines that sailed away to the ends of the earth. Keeping clear of statistical lists of vessels that entered and cleared from the many important European ports within that month, let us offer this Napoleon of commerce a shipping unit in the form of the sailing list of just one firm of British shipping agents, to supplement that of the American firm. The month is taken at random and the only vessels included are those for which cargo was being publicly solicited.

Taking first the ships clearing for European ports, it happens that all on this list had their prows turned southward. There were 53 for Spain and Portugal, and a squadron of 42 for cities along the Mediterranean. Nearly as many more were ready to carry merchandise to Constantinople and elsewhere in the Levant. These were only the steamship connections in Great Britain, remember, and practically every one of them connected at the outer end with a railroad that wound its way into the heart of the continent.

What were the opportunities of a Lowell cotton-mill making textiles for the south and east of Asia? Steamers from England bound for countries east of Suez went through the Canal at the rate of two a day, on an average. During the month seven turned aside for ports on the Persian Gulf, 39 went full steam ahead for Calcutta and Bombay; 13 others were scheduled to call at Singapore and then pass on to the theoretically open doors of China and Japan; two were for Batavia and one for Manila Bay.

Take the case of a manufacturer of agricultural machinery, wide-awake to the fact that the continent of Africa is rapidly becoming a white man's country. The coastwise lights of England saw more ships steaming for Africa in one month than for Asia. For the island of Mauritius, there were five; for East London, Port Natal, Delagoa Bay, Cape Town, and other South African ports, there were thirty-three; to the Barbary Coast went ten; and twenty steamers flying the Union Jack carried merchandise to the growing ports around the bulging West Coast, to return with mahogany and ivory and palm-nuts — and cotton-bales — for the mother country.

The American would not have been interested in the vessels that cleared for Australasia, but his competitors were. There were about twenty for Melbourne, and nearly as many for Auckland and neighboring ports.

The magnitude of British commercial interests in the continent to the south of us is shown in the smoke of its steamers. There were twenty-six from England to the River Platte in a single month, nearly one a day. Twenty-three went to Brazilian ports, fourteen to the Caribbean, and nine direct to Central America — not including those that called first at New York. Only twelve were destined for the Chilian and Peruvian coast, but when the gateway of Panama is eventually opened, the British flag will probably be the most familiar.

The manufacturer who gets raw materials from England, or from other ports through trans-shipment, could have supplied his factory for a long time with the clearances for New York during this one month. Those of us who have nothing to export and only occasional mail-matter to import may get some satisfaction out of the glaring fact that this one firm of agents had more steamers booked for New York than for any other port in the world, and many more for the United States than for any continent except Europe. There were nearly forty vessels for New York, seventeen for Boston, ten for Philadelphia, six for Baltimore, three for Newport News, four for New Orleans, and one bound on the long voyage around to San Francisco. There

were also five for Portland, Oregon, carrying cargoes also for Canadian points.

(4) Finally, if there be a commercial Alexander planning worlds to conquer, here is a slightly different list — the unit of transportation given in detail by "The Exporter's Encyclopedia" for 1908. The figures in this list are not the number of vessels but the number of different routes by which the American manufacturer might ship his goods to the countries named.

Shipping Routes from American Ports

DESTINATION	FROM NEW YORK	FROM PHILADELPHIA	FROM BOSTON	FROM BALTIMORE	FROM SAVANNAH	FROM NEW ORLEANS	FROM GALVESTON	FROM MOBILE	FROM NEWPORT NEWS
Africa	54	8	21	14	..	14	11	..	1
Europe	158	53	104	64	26	94	92	1	28
Asia	113	7	20	12	..	10	13	..	1
Central America	34	..	1	..	..	9	..	2	..
South America	57	..	..	..	..	4	..	..	..
North America	30	2	2	1	..	3	5	3	..
Australia	13	1	4	3	..	..	1	..	..
American Possessions	27	..	...	..	..	3	..	1	..

LITTLE STORIES OF MEN OF ACTION

FOR ten years Toledo has claimed a smaller percentage of boys in court and in the state reform school than any other city in the Union. Its youth has a record for being clean, thrifty, and free from vices. Every Sunday afternoon for half the year an audience of a thousand boys comes together in one of the theatres to listen to music and addresses — "the greatest Sunday School in America." A building for the exclusive use of newsboys is being erected at a cost of $65,000, with $10,000 worth of furnishings, on a $20,000 lot — all the gift of citizens. But the real credit for all these results belongs to a business man, Mr. John E. Gunckel.

He began his work for boys in 1892, with a Christmas dinner to 102 turbulent newsboys. Two years later he had them organized. In 1903, at St. Louis, he organized the National Newsboys' Association. Finally, in 1906, he retired from business and devoted himself exclusively to their interests.

Mr. Gunckel's methods are based on a perfect understanding and a true appreciation of the American boy. His association of newsboys in Toledo has a membership of 6,267, with every one of whom he has established personal relations. No moral, physical, or intellectual requirements are exacted of an applicant for membership, but no boy can become an officer or a member of the baseball teams, band, cadet or drum corps unless he refrains from swearing, stealing, gambling, lying, drinking, and cigarettes. The city is divided into four districts, with a local committee of sixteen in charge of each, and these local committees are entrusted with the responsibility of keeping the boys straight. A record is kept of every member and when a complaint is received it is registered in a book. Here are some of the entries:

"Traded his National badge for a magic lantern." "Foul language." "Smokes cigarettes." "Stole pipe at drug-store on ——— Street." "Spoke disrespectfully of the association." "Stole at five-and-ten-cent store." "Borrowed money of the bartender at the Bulldog saloon." "Insulting talk to a man on the street." "Out late nights." "Spoiled a street-vendor's ice-cream." "Abused the privileges of the playground." "Lied to Will Kerr's mother." "Ruined Morris Schiller's wheel."

A warning card is sent to the offender, and the local committee then keeps him under a mild form of surveillance until it can endorse its "O.K." opposite the complaint.

The distinction of this work — and the explanation of its success — is to be found in the man who has organized it and given the later years of his life to it. It is not a piece of well-oiled machinery, set in motion by an ingenious inventor; the work for the Toledo boys is hand-work. Mr. Gunckel's relations to the boys and their families is shown by a visitor's description of his helpful work for a Syrian family of eleven, not long resident in this country. An older brother, a manly fellow of seventeen, told Mr. Gunckel one day that he had a little brother who was getting to be "tough." Would they let him join the Newsboys' Association? Of course — and the end of the swearing was in sight. Then the father came to say that he did not know how to make change, except to a limited extent; would Mr. Gunckel teach him? Of course. Then the mother came to say that there were a lot of things that she wanted to know. Where could she buy some things and not get cheated? Would he tell her? Of course. What could the girls do to help the family while in poverty?

He helped them also. Every member of the family above five years of age has been to Mr. Gunckel for advice or help. They are now clean, physically and morally, and prosperous because he has taught them how to earn and how to use what they earn.

II

Grand Rapids, the second city in Michigan, has recently passed through a revival of righteousness and civic beauty, with Professor Zueblin of Chicago as its preacher. The "protracted meeting" lasted only a week but the state of mind that produced it has been forming for several years.

It may be said to have had its beginning in a direct primary law, which resulted in the election of a mayor who feared not the bosses nor regarded party politics. He cut down the number of departments and boards, placed most of the public work of the city under the direction of one manager, then selected the manager from a neighboring city solely on the ground of his fitness. The mayor also took the city schools out of politics by taking the election of the board of education out of the wards and entrusting it to the city—incidentally reducing its size from twenty-four to nine members. Eventually the politicians got rid of the revolutionary mayor, but the city refused to be led back to its old ways.

Grand Rapids had also a board of trade, chiefly for the reason that every self-respecting city has one. Its chief functions were understood to be the holding of a picnic every summer and giving a dinner every winter. Four years ago one of the board's committees began to take an interest in municipal affairs, but the aldermen told the committee that if it would look after trade they would conduct the city government. But the board of trade helped to revise the city charter, abated the smoke nuisance, and brought the billboards into subjection.

This gradually forming state of mind led to a desire for a city plan — a plan whereby Grand Rapids should be made more beautiful as it grew larger. The board wanted $8,000 to spend in securing experts to prepare the plan, but the aldermen decided that a commission of citizens could do it just as well, or better. The commission spent most of last winter in finding out that it was not equal to the task.

Then the committee from the board of trade prepared for the "protracted meeting." One of the newspapers readily agreed to publish a long series of articles showing what other cities had done in city planning. Letters were sent to every kind of organization in the city; placards were placed in the street-cars and shop-windows; thousands of circulars were distributed by means of the school-children. One week before the revival, the mayor told the secretary of the city-plan commission that the year's budget was the largest in the city's history and the aldermen could not be expected to favor an extra appropriation. But the commission went on working and brought to Grand Rapids its preacher.

The revival began on Monday in a downpour of rain and the auditorium was not more than half filled. But the lecturer went on with his civic sermons by day and his lantern lectures at night until, by Friday, the house was filled to overflowing. On Saturday a conference of eighty public-spirited citizens was held; their influence was then focussed on the aldermen. On Monday the matter came before the city council and the appropriation for a city plan was added to the budget. Instead of a fight, the aldermen passed it cheerfully, even with words of praise. The revival had appropriately ended with conversions and a collection — and it is never a helpful practice to cast doubt on the genuineness of conversions.

III

A German publisher in Newark, N. J.—Mr. Benedict Prieth, of the *Freie Zeitung*—has has furnished an object lesson in the curtailment of abuses growing out of city lighting. Instead of one central municipal plant controlling all the electric power, his method is to build a number of smaller plants, each of which shall serve the thickly populated neighborhood of a few city blocks.

To demonstrate that his plan rests on a sound business basis, Mr. Prieth organized a joint-stock company with a capital of $100,000, of which $40,000 was reserved for future extensions. With the remainder the company installed engines and dynamos to furnish electricity to a district of four blocks in the heart of Newark. The rate charged — 6½ cents per kilowatt-hour — is about three-fifths of the charge made by the public service corporation that supplies most of the electricity used in that city. During the winter the exhaust steam is sold for heating purposes at the rate of 20 cents per square foot of radiator surface,

for the season. The company's estimated annual income is $25,000 for electricity and $4,000 for heating; after deducting the expenditure and an allowance for depreciation, the net profit is estimated at $11,000 on the active capital of $60,000. The experiment seems to rest, therefore, on a practical basis. At any rate, Newark now has three other installations of this kind.

Here, then, is a way of relief for groups of people in any city who may be in the grip of an extortionate monopoly. The requisite capital is not large; there is no lack of available men to conduct such plants; and there need be no dividends on watered stock to be met.

Experience has shown that it is wise to include prospective customers in the organization of these joint-stock companies, for light and power corporations have a way of cutting rates for a year or two in their efforts to head off competitive enterprises. The best methods of business management must be practiced; all possible economies must be secured; and no surplus energy must be allowed to go to waste. The exhaust steam can usually be utilized for heating; the continuous use of power can be insured by combining business houses and residences on the same circuit; and such small accessories as motors and electric stoves and smoothing-irons assume large proportions in the year's accounting. The current during the four hours following midnight can generally be sold to ice-plants, chemical factories, and other industrial enterprises.

An energetic leader to organize the company, and good business management in its operation — these are the requisites for securing a form of relief much needed in many American cities.

ABOUT PERPETUATING GREAT FORTUNES

THE question used to be debated much whether great fortunes could be held intact generation after generation in the United States as in England. Many have now come into the hands of the third and even the fourth generation, and a few, perhaps, are even older. The form of property that seems most likely to be held together during a long period of changes of ownership is, of course, real estate; and the Astor fortune has from the first been chiefly in this form. Industrial properties are more fickle, for they require a continuity of good management.

A good example is the Gould fortune. When Jay Gould died, he left to his heirs an estate worth something more than one hundred million dollars. It had been accumulated in an era of rough financial methods, in the old "high-finance" ways, to put it calmly. It is in the form chiefly of railroad properties; and most of them, under their present ownership, have suffered severe shrinkage. The International & Great Northern Railroad, all of the stock of which was left by Jay Gould to his heirs, fell into the hands of a receiver early this year. The Missouri Pacific, the pet of the Gould family, was forced to cease the payment of cash dividends and to declare its payments in stock. The Western Union Telegraph Company, also a part of the Gould estate, did the same thing. A little later, the Western Maryland, a new Gould venture, passed into the preliminary stages of bankruptcy. Later the crowning disaster came, when the Wabash-Pittsburg Terminal, the huge plant created in Pittsburg as a result of the Gould-Pennsylvania Railroad battle, failed to pay its interest, and receivers were appointed. The Wheeling & Lake Erie Railroad has an embarrassing debt of many millions, which the Wabash Railroad guarantees, to its own weakening.

This lessening of values has come partly because of the less good management of this generation. Mr. George Gould, to whom the financial management of the estate fell, had an ambition to become one of the great creative railroad builders of his generation; but his great ventures have not prospered.

Such a case illustrates the old uncertainties of riches and proves that the preservation of a fortune kept in active current forms is as difficult a task as to accumulate it. Most of the great fortunes that have persisted from generation to generation have been in lands or other such stable shapes; and this rule seems to hold as true now as before the more modern forms of property — the corporation and its securities — were invented.

THE WEARY WORLD OF HUMAN MISERY

AT THE recent Pan-Anglican Congress in London, at which the moral needs and duties of all Christendom were discussed, insistence was most frequently made on the necessity of "a fairer distribution of the products of industry between labor and capital." Every country in Christendom was represented at this notable meeting of bishops and clergy of the Anglican and Episcopalian churches throughout the world — surely as intelligent

a company as any ecclesiastical body is, or ever was, made up of.

The most notable thing about the Congress was the insistent and repeated declaration of the wretched inequalities in men's condition. The Bishop of Birmingham, who was prevented from presiding by illness, sent an address in which he contrasted the poverty of the toilers and the luxurious idleness of the rich. He called on the church for "a tremendous act of penitence for having failed so long and so greatly to champion the oppressed and weak," to be followed by reparation lest "the well-merited judgment of God take all weapons of social influence out of our hands." Among the specific measures proposed by some of the speakers were the abolition of wage-earning women, and the public support of child-bearing women. Thus what is loosely called Christian Socialism cropped out in this great meeting to such an extent as to show the strong hold that such doctrines have on this church — and, perhaps, on all Protestant churches.

II

And truly any man who looks about the world will see so much poverty and distress, so many human beings born with no chance, so many growing up with no hope, so many grown up dwarfed and underfed and without a practical opportunity to change their condition — it is a sight to drive an unbalanced man of sympathy for his fellows to despair. So bad is the condition of a considerable part of the human race that a man who loses his historical perspective is in danger of losing hope when he contemplates it.

Nor is he likely to renew his hope when he discovers how ineffective most of the benevolent efforts are to better human conditions. Most such efforts are mere alleviations, or worse. None eradicates poverty or prevents its recurrence. The old method of alms-giving, for example, upon which the Church for many centuries relied, and in some countries still relies, made the total of human misery greater, not less.

And (with all respect) on fundamental economic forces the clergy have never spoken nor can they ever speak with compelling effect, because they themselves derive their maintenance from an extra-economic fund. They are themselves pensioners on society's indulgence or admiration or habit or fears, and they do not belong to the primary, economic, producing class. The captains of industry and the successful industrial class cannot delegate their power or their responsibility to any other class. On economic subjects they have always regarded the ideas and the efforts of other classes as theoretical; and they will always so regard them. The industrial leaders of the world look upon the good bishops and clergymen as benevolent but impractical men. And mere benevolence will never rid the world of human misery.

III

Such a task will be done, if it be done at all — or, let us say more hopefully, ***when*** it is done — only by the better direction of fundamental economic forces. The fundamental economic forces that now make some rich and strong and healthful and well-trained and leave others ignorant or vicious or weak in mind or body, or poor, must be so modified or set to work as to cease to perpetuate poverty and to breed the weak and to starve the inefficient. Such a task calls for more than resolutions and prayers.

The truth is that the strongest men in the world — the really great leaders — have not directly or seriously attacked this problem; and human misery will remain, at least till they do. For no remedy will be found but a fundamental economic remedy.

In a way, society in general is constantly attacking it, but not yet earnestly nor at the hands of its strongest members. Still, in the foremost countries of western civilization, the social and industrial condition of mankind has been greatly improved within recent times. The large cities have their cancerous slums; but, even in the great cities, since the application of scientific knowledge to human betterment, the condition of the human race is greatly improved. And there never was, perhaps, in the whole history of the race on earth, so large a body of human beings as well-fed, well-clad, well-sheltered, and as well-to-do as the whole American people outside the slums. It is still true that the establishment of our republic, with all the social and economic as well as political facts that it implies, was the greatest single effort in history to lift the life of a great mass of mankind to a higher level.

But even this was not enough. New industrial conditions have brought new problems, and changes in economic forces ever will

bring new problems. But new tools to work out new problems have also come — chiefly through the broadening of scientific knowledge. The more the state becomes scientific and economic in its proper range of activities, the better the masses will fare.

But perhaps even this is not enough; for the prevention of human misery calls for the right use of economic power by the controlling economic classes of society; and this will come about neither by ecclesiastical nor political men, but by industrial leaders themselves.

ONE ECONOMIC EFFORT TO PREVENT POVERTY

ONE industrial leader who is working to such an end, by the means that he regards as wise and effective, is Mr. N. O. Nelson, of Missouri, the well-known advocate and practitioner of coöperation. For twenty-two years he has shared the profits of his manufactory of plumbing and heating supplies with his employees, who now number 600; and for three years he has shared the profits of the business also with every customer who has in any year bought $100 worth or more of the company's products. His theory is that the business belongs to himself, who established it and has successfully managed it, to his employees, and to its customers, who all contribute directly to its success. So far has Mr. Nelson carried his philosophy into practice that he is himself now a minority stockholder in the company.

The sales of the business during the last four years increased as follows in round numbers:

	1904	1905	1906	1907
Sales	$1,600,000.	$2,007,000.	$2,353,000.	$3,116,000.
Net Profits	135,000.	156,000.	230,000.	357,000.

Mr. Nelson justifies and explains his plan thus:

"A partnership between all the employees and all the customers is invincible. The employees, from managers down to the cubs, are interested to carry it on in the most efficient, satisfactory, and economical way. Their ambition, pride, and income are at stake. The customers are interested in using as many goods as possible. Their pride and also their dividends, rising in some cases to several thousand dollars a year, are at stake. Not a few are awake to the moral and social value of coöperation.

"We paid last year 6 per cent. cash dividends on all our stock except mine; we distributed $201,000 in stock to employees and customers as dividends on wages and purchases and added something over $200,000 to surplus, which also belongs to them.

"I took neither interest, dividend, or salary, but I continue at my 36-year-old job of management. The employees and the customers have the free use of the capital and as efficient an organization as can well be imagined.

"These new owners own more than one-half of the stock; they will own practically all of it in a very few more years.

"Whenever anyone's holding reaches $2,000, he may claim his dividend in cash. There are a large number of such holders; no one has yet claimed cash for the excess. They prefer to let the stock grow. The employees have been stockholders for over twenty years, the customers for three. Not one has ever been meddlesome or offered to run the business.

"If any captain of industry, political economist, employee, or customer, can suggest an improvement on our plan for efficiency in production and economy, or in stability and fairness, the advice will be gratefully received.

"Civilization is n't built or maintained by every man taking all he can legally get or 'honestly earn.' It is made by men who do their best for the general good, regardless of money or earnings. Very properly, no man has ever been immortalized for having made money or given away money. Washington did n't make a pile or give away chunks. He gave himself. So did Franklin and Jefferson and Lincoln and Lee. So have all the honored names in history.

"Poverty and ignorance and class separation will never cease until captains of industry cease to be absorbers and spendthrifts, and become true captains, leading the business organizations for the greatest good of the greatest number."

Here, then, is a man who built a business and who is giving it to his employees and his customers; for that is his conception of the organization of industry that makes a fair distribution of the products of labor and of capital and of management. He has himself made a competence rather than a fortune, and he now receives from the business only the interest (or dividend) of 6 per cent., on his capital.

His judgment is that, since all his workpeople have prospered beyond the average of such workers, and his customers also, they will continue so to prosper in an increasing degree and that this enlightened self-interest will cause the business both to continue to grow and to be well-managed after he is dead.

The fact that his example has not yet been followed in its entirety by any other industrial company of which we have knowledge proves only this — that other industrial leaders have not yet been convinced either of the desirability or of the morality of it — rather of the

immorality, as Mr. Nelson regards it, of the usual organization of industry. But one thing is certain — here is a man who is trying to prevent human misery not by preaching only but by the utmost use to that end of the economic forces that he controls.

OUGHT PUBLISHERS TO BE HANGED?

SOMEBODY frequently asks somebody else — recently it was the English critics asking the publishers — what can be done to discourage the — indecent — novel, to put it bluntly. Sometimes the effort is to discourage the merely frivolous novel; but, after all, it is hard to arouse any very serious protest against mere frivolity. But against indecency? Even that is a hard task, because the more you criticize any particular novel, the more popular you make it. Herein is the insidious quality of the thing. Unless you have a censorship with police power, you can attack it only indirectly and in general terms. Hence the proposal in England to take a short cut to righteousness and hang the publishers. Why not the authors also, and the readers? While you are making a plan to reform the world by the good old-fashioned method of killing the wicked, why not make the plan a thorough-going one?

And whenever such an agitation comes there comes also the discussion of the larger subject — why should the novel continue to hold so nearly a monopoly of popular literature? We have a constant stream of histories, biographies, travels, studies in politics, in religion, books on natural history, and scientific books of many sorts; but the number of novels read outnumbers them all. No "general" publisher could do a considerable business if he omitted new fiction from his list; for the popular novelists command a wider market than all the living writers of other forms of popular literature put together.

All which means only that the novel is the most effective as well as the most profitable living form of literature. If you wish to put forth a new idea — a religious cult or a new wrinkle in education, a method of reforming criminals or a new notion about an historical character, if you wish to give a vogue to a particular kind of cake or to describe a little-visited region, if you wish to establish a social colony or to eradicate an industrial iniquity or to advertise a new summer resort — you write a novel. By novels women pay off their social grudges and men expose their business enemies who have not played fair, and advertise their favorite motor cars; and, if they do it well enough or ill enough, they catch the attention of the crowd.

The public is the final arbiter. If it neglect a novelist, he has no redress. If it take him up he will have his day. And the main aim that the public has is to be amused. It does n't bother itself greatly with "literary quality" or "literary atmosphere." It wishes to pass an agreeable hour, as when it goes to the theatre. And in our country at least it is the public that decides to what extent it will have prurient novels. At times it seems unduly fond of them, especially if they be written by women, as most of the worst of them are. Then after a while, the tide turns and historical stories or stories of imaginary kingdoms — a sort of opera-bouffe romances — have their day. So had ping-pong. So has bridge. Why become too serious about it, unless you can find a better way to amuse the idle or the weary?

Meantime, along with this strong tide of ephemeral books come the few that are good mirrors of life, revealing something worth remembering, and they abide — for a time at least. In fact, literature was always made in this way, being the best left by time of a vast number of things written.

There is no moral to be drawn from these recurring discussions. As long as the public will read large editions of unfit fiction, writers and publishers will provide it. But all the while there are both writers and publishers who refuse to provide entertainment of so low a kind, and they have their reward in the esteem of their fellows; and, if they put forth really great books, they have their pecuniary reward also. The remedy for any degradation of taste or of character is the cultivation — by everyone for oneself and one's household and friends—of a high taste and of nobility of character no less in the books that one reads than in the other company that one keeps.

ABOUT GREAT CORPORATIONS

THE large corporation has frequently been called one of the most important of modern inventions; and surely, both to the public grief and to the public benefit, the great corporation in strong hands has become the most powerful of all modern machines (strong governments alone excepted.) It has long been the subject of the most bitter controversial literature and of the fiercest political

warfare. Yet the real working of the great corporations is little understood.

It seems, therefore, a chance to do a good practical service by explaining the organization and personnel and the actual operation of some of the great corporations. Such explanations are the literature of present activity — and real literature if they be well enough made. The first of such a series of explanatory articles begins in this number of THE WORLD'S WORK— Mr. Keys's first article on the Standard Oil Company. It will be followed by two other articles. Then several other large corporations that have attacked and solved different kinds of problems will be explained in the same way — we hope both to the pleasure and to the enlightenment of the readers of THE WORLD'S WORK. Many months of labor have been spent in their preparation and the result will, it is hoped, be both of practical help to men-of-affairs and of equally great aid to all students of the large forces that shape present activity and our civilization.

MR. ROCKEFELLER'S REMINISCENCES

SINCE the announcement a month ago of the Reminiscences of Mr. John D. Rockefeller, which will begin in an early number of this magazine, the publishers have received a great number of inquiries about them from all classes of men, from all parts of the United States and from some of the countries of Europe. Mr. Rockefeller may, therefore, be assured of a very general — apparently a universal — and very sincere interest in what he has written. Many of the inquiries are about questions of re-publication and distribution, and many are about the contents of the Reminiscences. "Does he really tell the methods of his business success?" "Does he explain the great principles of corporation building and management?" Yes; but persons who are looking for what might be called personal financial experiences expressed in mere dollars and cents will be disappointed. The dominant note of Mr. Rockefeller's Reminiscences is his modesty. He tells nothing directly about his own fortune. But he does make very plain — as a serious message to men of affairs, especially to young men — the large normal, natural laws of trade. Success is not won by tricks but by the patient and wise use of great principles, by fair dealing and by — good humor; for both humor and good humor pervade his whole narrative.

In the September number will appear "Some Personal Impressions of Mr. Rockefeller," by Mr. F. N. Doubleday.

THE WAYS OF FOREIGN INVESTORS

WHEN a strong American railroad makes a big bond issue, it is quite the usual thing for the underwriting bankers to announce that a large proportion of the issue has been bought abroad. Convention has made this foreign buying a sign of great merit in the bonds. For instance, when the Rothschilds permitted the American public to learn that they had participated with Messrs. Kuhn, Loeb & Co. in the buying of the Pennsylvania loan in May, the critics here made much of that fact. It was used as an argument that even the most conservative of American investors need not be afraid to come in and buy at the prevailing prices.

The average American can afford to ask the reason for this strange faith in the judgment of the foreign public. Why should the mere fact that French, Swiss, German, or English investors will take certain bonds constitute any sort of a guarantee of the quality of those bonds? Is this faith well founded, or is it not? If so, what can we learn from the ways of these foreigners, who know so much about investing?

When it comes down to a final analysis, I do not believe that the average of foreign investment is any better than the average of American investment. In some respects, however, the American can find much to learn from the foreign investor. In this article, I shall try to outline only a few matters that are worth noting.

Nothing may be learned from the habits of the speculative or semi-speculative investors abroad. The English people bite quite as eagerly as the American at the glittering bait of the fortune-hunter with a good prospectus

and a suave and easy way. The main difference is that the laws of England are stricter and better enforced than our laws, and the promotion of a fraudulent concern is apt to land the glib promoter in jail. For that reason, there is less temptation for the uninitiated; but the record of the Kaffir mines and the mines of all over the world in the London markets tells its own story. The gambling spirit is quite as strong in the English market as it is here.

Holland, Germany, and Japan are no better. Perhaps the Japanese bourses are the most speculative in the world. A great Japanese financier once told me that a legitimate market was quite impossible in Tokyo, because the people cared only for quick profits and could not be restrained in any way from terrific gambling. The record of the market for the last year should help to correct that tendency, for the collapse was little less than a continuous panic, resulting in a widespread financial disaster to the speculative buyers.

Passing by the speculative side of the markets, one finds some help for the student of finance, and the farther one gets away from the speculative side the more there is to learn. In standard railroad stocks, the way of the foreigner is different from our way. The wealthy or well-to-do Englishman, for instance, buys a large amount of railroad stock, either the stocks of the English, American, or Canadian railroads. He has little prejudice in the matter. How many readers of this article have ever heard of an American investor who owned any stocks of foreign railroads? Even the Canadian Pacific, whose stock is listed here, counts few American holders on its books.

The Englishman is a persistent stockholder. He has to be persuaded beforehand that the road is good. Then he buys its stocks, not with any idea that the stock will go up and he will sell out; but with the idea that when he dies his heirs will find the stock in his estate. After a little, if the road continues to make good reports, he would sooner part with a friend than sell that stock. It comes into the family and stays there. The preferred stock of the Canadian Pacific, for instance, pays only 4 per cent. dividends and will never pay more. It is scattered over England in little pieces. No panic can ever shake it out. Some Harriman might make a frantic effort to buy the control of that road and might even come close to succeeding, and the common stock might soar to $300 a share, but I doubt whether one holder of the preferred out of five would hear of it until long afterward.

One day in the early summer of 1903, I met an investor of this class. It was in Canada, and I was on a holiday from Wall Street. He was a quiet man, well on in years, of the Canadian professional class, a reader and student, but not what we in this country would consider a keen business man. When he heard that I came out of Wall Street he showed some interest.

"Do you ever hear of the stock of the C. P. R. down there?" he asked.

I told him it was listed, and that there had been a lot of trading in it at very high prices. It had gone above $140 per share. That seemed to amuse him.

"I used to live on that railroad," he said, "and I bought ten shares of the stock at $42 a share, a good many years ago. It used to pay 2 per cent,, but lately it has been paying 5 per cent. I think it is a good stock."

American-like, I advised him to sell it, and buy it back again some time when it went down. I gave him the usual Wall Street prescription, a liberal dose of statistics flavored with cynicism and suspicion, but it had little effect on him.

"Why should I sell it," he asked, "so long as the report they send me each year shows a bigger and better railroad, good management, and large dividends? So long as I think they are honest, why should I not hold it?"

An effort to demonstrate the truism that the right time to sell is when everyone else wants to buy proved futile. He held it. It went down to near par within a few months, but probably he never heard of that. Since then, it has sold for more than $200 a share, and now it pays his estate 7 per cent.

My private opinion is that he knew ten times as much about investments as I did, or as the average Wall Street man does.

This steadfast type of investor is not exactly rare in this country, but he is not plentiful enough. When the list of stockholders of the Great Northern was made public, for instance, it was almost shocking to discover how large a part of that list consisted of English lords and commons, ranging from a prince of the blood to penny-a-liner newspaper men. Most of them had bought when the road started, and had held their stock ever since,

and would hold until they died. They stood solid through the long protracted railroad wars of the early '90's. The Northern Securities organization failed to shake them out. The long litigation and the final overthrow of the Securities Company left their ranks still intact. Even the terrific declines of the years that have followed have failed to terrify them. They have stood by to take the "melons" that Mr. Hill has cut for them; they still get their 7 per cent. a year; and they will probably still be on the books, in name or by descent, long after Mr. Hill and the present managers have ceased to run the road.

Occasionally things go wrong. The Erie, for instance, has been a regular pitfall for the English for a full generation. Many thousands of its shares are still held abroad, and probably will be held always, or until they are wiped out by some real reorganization. The Chicago Great Western, the Kansas City Southern, the Chicago & Alton, the Southern Railway have taken many millions from foreign investors. They still hold on. If the time should come for assessments and reorganization, these people will pay. In the fullness of time, they may reap their rewards.

In bonds I think the judgment of the foreigner often goes wrong. It is usually in the matter of new bonds on some new road. The English and the Dutch are pioneers by instinct. When a new road is projected, they are easily induced to come in. They buy at small prices, knowing that they take some risk but are willing to take it. When, for instance, Mr. Hill and Mr. Smith (now Lord Strathcona) wanted to get hold of the old Manitoba Railroad, they had to buy out the Dutch bondholders. A committee came over and looked at the road, saw the grass growing a foot high between the ties, contemplated the locomotives, shook their heads very wisely, went home and advised their clients to get out at any price. They did it. Mr. Hill and Mr. Smith made the Great Northern out of that miserable wreck of a railroad. For once, Dutch patience failed to measure up to American — or was it Canadian? — shrewdness.

There is a lesson to be learned from this experience, and the similar experience that Mr. Arthur Stillwell afforded the Dutch bondholders who bought the bonds of the old Pittsburg & Gulf Railroad, now the Kansas City Southern.

Do not be too eager to listen to the tale of the promoter. If you are merely an investor seeking a safe use for your money, talk to the "man with the golden dream" in this wise:

"It may be very true that your railroad from Savannah to Nome is going to be another Pennsylvania. Let us take it for granted that it is true. Then, if you come to me in twenty years and show me that the road is another Pennsylvania, I shall buy your bonds. In the meantime, I prefer the bonds of the Pennsylvania itself. True, I pay 2 per cent. more for them; but I much prefer to pay five dollars for a certainty that I know is a certainty than to pay four dollars for an uncertainty."

It would be too long a task to demonstrate that every new railroad is an uncertainty. Take it as a fact that it is. Write across the top of every page in your stock and bond ledger, in heavy capital letters, some motto such as this: "Buy on present facts: not on promises." Then stand by that principle. Don't let anyone, friend, foe, stranger, brother, wife, or mother-in-law — since all offend — persuade you that some new invention, some novel trolley railroad, some wonderful terminal plant is going to be another Pennsylvania, another Bell Telephone, another Grand Central Depot. Remember that in 1908 a wireless telephone company was sold by the sheriff, a New York–Chicago air-line went up in the air, and a Pittsburg terminal of marvelous promise went into the hands of receivers. Keep your feet on the ground and you can't fall off.

There is a very real lesson to be learned from France, but it is not strictly a financial lesson. It is the lesson of thrift; and it is woven into the woof of national character. It will come some day to this country; perhaps it is coming now. If the average man can learn anything from it, it is to put away a little money every week. He can put it in the savings-banks, or he may go and buy one share of good stock at a time. If he wants to follow the French example, he will buy "for keeps," that is, without wanting to sell again in many years. The Frenchman buys *rentes*, or Government bonds, but the American can't do that because our Government, in its wisdom, has a financial system that makes its bonds the most foolish good thing a man can buy. Our railroads follow suit by issuing their bonds in pieces of $1,000. Here and there, some com-

pany like the New Haven or the Colorado & Southern in recent years puts out bonds of $100, and the best real-estate companies do the same. France, in reality, is an object-lesson to the Government, rather than to the people. Let me close by quoting a paragraph from the pen of M. Neymarck, one of the most eminent of the French financial writers:

"French *rentes* are sustained by millions of those depositing small sums in the savings-banks — minors, the disabled, married women, insurance societies, mutualists, and the millions of middle classes, countrymen, shopkeepers, and merchants disposing of some hundreds or thousands of francs, all of them investing in the security and tranquility of French 3 per cents. No country in the world possesses such a financial democracy. This democracy, which imprudent legislators too often alarm, has the respect and gratitude of everybody. It has furnished funds for the war ransom, for the recuperation of the country, and for improvements in times of peace. Freedom of territory and restoration of the country are found in the legendary 'woolen stocking.'"

C. M. K.

ENDOWMENTS — THEIR RELATION TO INSURANCE

THREE years ago THE WORLD'S WORK issued a special insurance number, much of which was devoted to an explanation of the character of the endowment policy. But, in spite of this, so many of the readers of the magazine have written for information about these policies that it seems as if it would be helpful to explain the endowment policies again. These policies generally read somewhat as follows:

In consideration of the payment of . . . dollars and the payment of a like sum to the company on the specified day of each year during the continuation of the policy, the company will pay the face of the policy to the beneficiary of the insured in case of the insured's death; and in case he is living at the expiration of the policy (usually twenty years) it will pay him the same sum.

The endowment policy is one of the standard policies prescribed by the revised New York insurance code. They are sold with some such line of reasoning as follows: Endowments cost a little more but they combine both insurance and investment — the face of the policy for the family of the insured in case of his death and the same amount for himself at the expiration of the policy (usually twenty years) if he is living at that time.

Let us take an example. A twenty-year, non-participating endowment policy for a man thirty years old costs $42 a year, or $840 in twenty years. At the end of the twenty years, the insured receives $1,000 — considerably more than he paid in — and all this time he has had $1,000 worth of insurance.

An analysis of an endowment policy, however, will show that it is one of the least economical policies that are issued. There are two parts to the contract. The first provides that, if the insured die during the twenty years of the life of the policy, his estate will receive $1,000. This provision is practically a twenty-year term policy, which at the age of thirty costs about $15 a year. The endowment policy at the same age costs $42 a year. The other $27 is obviously the payment for the investment part of the contract. For the twenty $27 annual-payments the company agrees to pay the insured $1,000 if he be living at the expiration of the policy. An annual deposit of $27 for twenty years in a savings bank paying 4 per cent. interest would amount to $835.22; and an investment netting 5 per cent. would amount to $1,040.17. This seems on the surface to bear out somewhat the claims of the company; and, if a man could be both alive and dead at the same time, the twenty-year endowment might be a good policy for him. But the policyholder pays $15 a year for $1,000 which his family will get if he dies, and $27 a year for $1,000 which he will get if he lives. He is betting against himself, with the insurance company as stakeholder. He has paid for both insurance and investment. He can get only one.

Supposedly, a man's main object in buying life insurance is to provide for his family in

case of his death. Let us compare the estate that a deceased policyholder would leave who bought an endowment policy with the estate which he would leave if he bought term insurance and invested the $27 difference between the yearly premiums of the two. If he died in the twentieth year of his policy, the comparison would be as follows:

THE TWO PLANS COMPARED

Term insurance .	$15 a year	= $,000.00
Bank deposit . .	27 a year at 4%	= 835.22
Total payments .	$42 a year	= $1,835.22
Endowment policy	$42 a year	= 1,000.00
Difference		= $835.22

Or, if he had spent the whole $42 per year on term insurance, it would have purchased almost $3,000 worth.

The endowment is sold on the plea that it provides for the insured if he outlive the policy, and for his family if he dies. The more correct way to look at it is — it provides that he pay for two benefits, one of which it is impossible to receive.

In making the comparison between endowment and term insurance, it is not meant to recommend term insurance above all others. If has advantages and disadvantages when compared with the level premium life and with limited payment policies. It is, however, the only fair comparison with the insurance part of an endowment policy.

When the fallacy of the endowment is pointed out to an agent who has recommended it, he will often answer, and with some truth: "Yes you *can* save more money by putting your surplus in the bank than you can by taking out an endowment, but you won't put the money in the bank." Yet it is doubtful if it pays the average man to hire an insurance company for $835 to make him save $1,000, especially since there is a large proportion of lapses among these high-priced endowment policies.

Aside from their excessive cost, there is another serious disadvantage of the endowment policy as an investment. A man who has his money in a savings bank or invested in good bonds can turn it into ready cash if the need arises. A man who is paying for an endowment cannot get his investment turned into ready cash (unless he surrender the policy, which entails considerable loss and ends his insurance). He can borrow only a small sum on it, and he must continue to pay premiums, whether he is prosperous or not. The only thing he can do to alleviate the situation is to borrow back some of his own money at a little more than 5 per cent. interest. If a bank depositor ceases to add to his savings, the bank will nevertheless keep his former deposits for him. But an endowment policyholder who can no longer save loses his policy and part of the money that he has already paid in.

It is necessary that a man should pay his insurance premium every year, and he ought not to take out more insurance than he can carry. But no such rule holds in investing, and it is foolish to put in jeopardy one's savings by contracting either to put by so much every year or to forfeit part of them; nor is it wise so to lock up savings which are husbanded against stormy times that when those stormy times arrive the savings can not be touched.

A STORY OF EXPORT SUCCESS

HOW AN AMERICAN SHOE MANUFACTURER BUILT UP A TRADE THAT NOW ENCIRCLES THE GLOBE

BY

E. J. BLISS

I THINK the starting point of our foreign business was the inflexible rule which I established many years ago that all foreign letters, of whatsoever name or nature, should be answered with an elaboration of courtesy which is not general in correspondence between American business men.

I believe it would be difficult to exaggerate

the influence which this policy has had upon our foreign trade. Foreigners, without exception, are unaccustomed to the rather brusque tone which the American adopts in his business communications. They are in the habit of receiving and sending letters couched in careful, considerate language. Many of them would take offense at the terse, direct expressions which we are accustomed to exchange daily through the mails without the remotest idea that they are different from the expressions customarily used throughout the entire business world. Many a prospective customer has been unwittingly lost by an abrupt, careless letter, when he might have been won to the purchase of thousands of dollars' worth of goods had the writer been careful to use such conciliatory expressions as are common abroad.

I was fortunate enough to learn this lesson very early in my business career and have never lost sight of its importance.

THE BEGINNINGS OF FOREIGN TRADE

Our foreign business took its rise from letters of inquiry. These were induced partly by our magazine advertising and partly by the word-of-mouth advertising of American travelers who wore our shoes into foreign countries and found that they were commented upon favorably. It was natural for those travelers to explain to their acquaintances that they could get similar shoes, with the practical assurance of a perfect fit, by writing to us in America for them.

At the first appearance of this business, I felt sure that it could be developed very largely by care and attention. I therefore elaborated our system of self-measurement and had the instructions carefully translated into the languages of various countries, and expressed in terms which the common people of those countries could readily understand. In those instructions I expressed the size-dimensions of our shoes in the units of measure commonly used in the country to which the instructions were to be sent. When orders began to come in, I was careful to see that every single pair of shoes sent out to fill them was most rigidly inspected. In many cases the goods were especially made in order to be absolutely sure that they contained the best of material and were, in every respect, as good shoes as we could construct. I was careful, also, to make it easy for the purchaser to get the goods delivered, either by anticipating his troubles with the customs or by giving him explicit directions how to proceed in order to obtain delivery from the transportation company.

Of course, all these details made the foreign business rather expensive for us at the start, but I looked upon every pair of shoes that went into a foreign country as a seed from which might spring in the future a large and profitable trade. I felt that elaborate care in looking after the interests of every customer would not only be appreciated by him, but would be repaid manyfold by the advertising which our goods would thereby receive. It seemed to me that it must be a rather unusual event in any community for a man to send from 3,000 to 8,000 miles to buy a pair of shoes, and an event that would be generally canvassed among his friends and acquaintances when the shoes were finally received. I could not imagine an American sending a mail-order to France for a dozen handkerchiefs, getting the goods promptly and in every respect up to his expectations, together with a courteous letter (written in English) from the French manufacturer, without doing more or less talking about it. And it was this *talk* that I was determined to get the benefit of.

Well, the plan worked, and on the foundation thus laid we have built practically our entire foreign business. The first result was an increased volume of mail-orders. When we sent a pair of shoes to Constantinople or to Shanghai or to Montevideo, we found in a large majority of instances that, although they might have been ordered in the first place largely out of curiosity, the result was to bring to us more orders — not merely from that particular customer, but from his friends and his friends' friends in an ever-widening circle.

ESTABLISHING FOREIGN AGENCIES

As the next step, applications for agencies began to flow to us from many of "the centres of infection" that we had thus established. Local dealers found that some of their customers were sending all the way to us for shoes. Such customers had the habit of taking their shoes around to the dealer and praising their good qualities after they had them on their feet. That was human nature, and it was also human nature for the dealer to try to recover trade which he saw slipping away from him. Hence his application for an agency.

In handling these applications, we followed

the same rule of careful courtesy that had governed our correspondence with retail mail-order purchasers. Where conditions were such that we could establish an agency with profit to ourselves and to the agent, we accepted the application. Wherever conditions made such connection undesirable, we put ourselves to the trouble of replying to the applicant in full detail, explaining just why we could not consistently avail ourselves of his application, and expressing the hope that a way might be opened in the future for us to deal with him.

This is a simple statement of practically *all* that we did in the way of missionary work to secure foreign business in any country, with the exception of the United Kingdom, where we have a regular store system following our American method. The agencies that have come to us from the other countries have come simply as the result of consistently pursuing the policy that I have outlined. The trade has been one of steady growth and has been full of interesting incidents. For example, the thriving little mail-order business which we have built up in the Hawaiian Islands brought us a cablegram recently from a strong local house, offering to pay the expenses of a representative of our company if he should visit Honolulu with samples, and also guaranteeing him an order. That order, amounting to a little more than $15,000, is in process of manufacture as I write. Our business in Mexico, in South Africa, in the Philippines, in Japan, in the Chinese ports, in British India, and in all the South American countries has been established by following the same method. And I see no reason why any American manufacturer of a specialty adapted to foreign trade cannot secure that trade by working along similar lines.

STUDYING THE MARKET

The chief fault, I think, with the American's efforts to secure foreign trade is a lack of attention to details and a lack of study of the people with whom he tries to do business, and their requirements. We have the capacity to win foreign markets. With one-tenth of the energy and care bestowed upon them that we give to our home market, we could dominate the world's commerce in many, if not in most lines of manufacture. The business is ready for us now. It is for us to say whether we want it or not. But if we want it we must go after it with the determination not only to teach but to *learn*.

It is foolish to attempt to overbear prejudice too quickly, or to impose our national methods too suddenly upon civilizations as old as those of China or Japan or India or Continental Europe. When an American goes after foreign trade with the idea that he can, with a twist of the wrist, make Yankees out of Chinese, or New Yorkers out of Englishmen, or Pennsylvanians out of Hottentots, he simply adds his own commercial corpse to the accumulated bones of those that have gone before him and perished in the like attempt. But when he goes after it with the determination to amalgamate — say — 60 per cent. of Americanism with 40 per cent, of local prejudice, he wins almost every time.

THE AMERICAN RATING IS A-1

This is a lesson that Americans have been slow to learn, but they are learning it at last. From my own observation, the change in American methods of handling foreign trade, in even so short an interval as the last three years, has been remarkable. Most of the houses that have had any experience are now on the right track. American manufactures are going, in a steadily growing stream, into the four quarters of the earth. American goods and American firms now rank, for squareness and honesty (I mean just what I say) on a plane *above* those of the two greatest export manufacturing nations in the world. We hear much of the technical skill of one of those nations and of the "thoroughness" of the other. What their manufacturers may be capable of doing, if they try, I have no means of knowing. What they actually *do* turn out in the way of products for foreign use is below the standard of American exported articles —below it somewhat in price, to be sure, but much farther below that standard in quality than the actual difference in selling-price would justify. At least, I hear this from so many independent sources connected my with organization that I am thoroughly satisfied of its substantial agreement with the facts. If we Americans can only bring ourselves to pay more attention to details and get rid of our infernal carelessness (a fault which I believe the average foreign merchant is absolutely unable to comprehend), there is no limit to what we can accomplish in the markets of the world.

THE PIONEERS OF OUR EXPORT TRADE

BY

U. D. EDDY

THE exportation of American manufactured goods, as a separate business, began in 1870. Previous shipments abroad had consisted almost exclusively of food products and crude materials destined to be elaborated in European factories.

Yet we had long been a manufacturing nation and for years had carried on a modest export trade in the sale of factory products to non-manufacturing regions. This traffic was a trifling part of the business of the oversea merchants of that day, who sent out sailing vessels laden with illuminating oil, lumber, flour, and other staples, and added to each cargo a limited quantity and variety of finished goods.

We were dwellers in houses made of wood and had acquired special skill in constructing the implements with which to build them. The mechanics of many countries had found out that our edge-tools, saws, and boring implements were the best — and gladly bought them. Handles of hickory and ash were in demand. Chairs (made from the hardwoods of New England), taken apart and packed in cases, were cheap and good. Yankee clocks told the time of the world. With illuminating oil went the lamps in which to burn it.

The Kaffirs of South Africa and the farmers of Argentina were eager buyers of our cheap cast-iron plows, with which they had but recently replaced the bent stick with an iron-shod point. Shovels, light, strong, and with properly shaped handles, were slowly crowding out the clumsy European models; while American forks and rakes were used in handling the hay and grain cut by American mowers and reapers.

But, after all, this exportation of finished goods was but a minor incident in the transactions of merchants whose larger interests were in the importation of foreign products, which they paid for with the proceeds of their exports.

Certain enterprising young men, familiar with these conditions, made up their minds that there would be money in the exportation of manufactures, and determined to devote themselves to that specialty. In order to get a foothold in the countries whose trade they sought, they sent out bright fellows possessed of "sand" and capable of making themselves understood in the languages of their prospective customers. These salesmen carried quantities of samples and knew all about the goods they offered. As a result of their pertinacious activity, many articles not before exported began to find acceptance. The trade grew fast. Fair dealing made it grow faster. The firms that conceived and carried through these schemes were the first middlemen in the exportation of manufactured goods.

It was the traditional policy of European purveyors to keep the maker of goods and the foreign buyer in ignorance of each other. The slighter their acquaintance, the larger the gains of the shipper. But the American middlemen pursued a different course. They distributed among customers the catalogues of manufacturers and gave in price-lists their names and brands. Thus they educated buyers as to sources of supply. They worked, too, on small margins, relying on volume of transactions for profit.

These middlemen found pioneering expensive. The cost of accrediting goods in distant regions cut a big hole in their profits. After all, they were really distributing agents for manufacturers, whose margins were considerable, and to them they applied for assistance in this jointly beneficial work. They asked them to concede special discounts for export; to make contributions toward the expenses of salesmen carrying their samples; and to advertise in the elaborately illustrated price-lists in which the maker's names and products were quoted.

Many manufacturers responded but languidly. Aggressive in competition with each other within the unscalable tariff wall, they were timid outside of it and incredulous of their ability to take trade away from European makers. Willing to spend thousands

in getting a foothold in a Western county, they grudged hundreds to help create a foreign outlet. Yet a considerable number, appreciating the possibilities, responded generously and reaped a great reward.

The rapidly growing volume and variety of shipments began to attract attention. Export facts became news to which the press gave a wide publicity. Stories of the wonderful profits of selling to far-away lands fired the imaginations of many whose enthusiasm was equalled by their ignorance of the complexities and perils of the business. Export houses multiplied. Of these the rash and the superficial soon fell by the wayside, but the wiser and more persistent, after buying experience through blunders and losses, successfully established themselves.

This increase in the number of middlemen resulted in still keener competition, which reduced profits but stimulated transactions. Presently, certain fortunate manufacturers found that they were exporting half their product and that the volume of their foreign orders warranted the establishment abroad of their own branches and agencies. This enabled them to dispense with the services of middlemen, who discovered that their very activity, while benefiting the people whose goods they introduced, was curtailing their own share.

Meantime, the era of industrial consolidation had arrived. In many important lines of export there was but one kind of seller, who preferred to deal direct. Corporations like the Standard Oil Company, the United States Steel Corporation, and the International Harvester Company, had little use for middlemen.

The more farsighted middlemen gave up the introduction of other people's goods but urged upon manufacturers that they push their own wares. They were glad to cash any orders that the makers might obtain, trusting to their intimate knowledge of trade conditions and to special facilities to secure a share of the increased export. To this end they strengthened themselves by obtaining from European bankers (familiar with foreign markets) financial facilities which enabled them to grant longer credits. They substituted the cable message for the letter; and by means of ingenious codes, at trifling expense, they made telegraphic offers of merchandise delivered, freight paid, in the buyer's port, to be settled for in the one international money of account — the pound sterling.

Trade grew enormously, and, in spite of handicaps, many middlemen prospered. Some concerns expanded into international department stores, selling everything everywhere; others assiduously cultivated a single foreign field; still others confined themselves to special lines of manufacture.

More elaborate organization and larger business involved the use of more capital. Houses of limited resources found themselves unable to compete, and with the swift growth of export trade came a reduction in the number of houses devoted to it. Partners in smaller firms found themselves forced to take charge of departments in the establishments of their richer rivals.

Through the telegraph, time, as a factor in export trade, has disappeared; while, through steam transport, distances are rapidly growing less. Changed conditions are converting the middleman into a banker who intervenes financially between the large manufacturer at home and the importer abroad. But, while the larger producers of exportable goods can afford to maintain organizations to watch the needs and credit of foreign merchants, those whose exports are smaller find the middlemen still essential to their operations and from them he draws a profit on the merchandise that he handles as well as on the that credit he grants.

In spite of the lecturing and admonitions of our consuls, so frequently voiced in the newspapers, our export trade is handled with skill and untiring enterprise. Sporadic instances of bad packing, bad faith, and bad judgment occur, but they are rare exceptions.

The systematic efforts to extend export trade have produced marvelous results. To-day our neighbors on the north and south, Canada and Mexico, in spite of high tariffs, are commercially parts of the United States; the West Indies look to us to supply their needs; American drummers haunt the cities of South America; Africa buys of us a large part of its imports; in Australia American goods have a preference; the Orient yearly calls for our low-priced wares, while European competitors are perforce our largest customers. The merchant marine of our rivals is at our service at rates as low as those charged their own exporters; and the banks of Europe actively compete for the privilege of financing the transfer of our manufactures to foreign buyers.

The highly paid American citizen, supervising a machine, need fear no rival in low cash products.

AMERICAN TRADING AROUND THE WORLD

OVERSEAS CONQUESTS BY THE MANUFACTURERS OF THE UNITED STATES IN SPITE OF MANY HANDICAPS—A VOLUME OF TRADE THAT ALREADY ENCIRCLES THE GLOBE

HAS the tongue of the Yankee trader lost its famed persuasiveness? Does he sit disconsolate in the great world-markets and watch the buyers jostling one another in the stalls of his competitors? What is the plain truth about the foreign trade of the United States?

The man who seeks it in the great sea of export literature will find himself borne along by one or the other of two distinct currents. The one has its rise in the advertising office of the export paper. This stream is full and bounding and jubilant, its song pitched in a key of triumph: All the world is holding out its hands and pleading for American goods! The doors of the awakening East are wide open to the products of New England's looms! Latin-America, Russia, and Manchuria want all the agricultural implements that the Middle West can load upon outgoing steamers! South Africa is compelled to use European machinery because its industries cannot be supplied with products "made in the U. S. A.!" A wonderful harvest of foreign orders awaits the manufacturer who has gumption enough to look at the rainbow in the skies—and to take at least half a page of advertising space! But the export paper hears no world-cry for Mississippi cotton, for Kansas wheat, for Virginia hams — because the farmer does not buy advertising space.

The other current has its principal springs in the National Capital — and the District of Columbia is much farther from the shipping docks of the seaboard than its geography would indicate. This stream is more or less sluggish but it swells at times into an indignant flood or moans over lost opportunities: The American manufacturer is an ignoramus, and knows not how even to answer a foreign letter; he closes it with "Very truly yours" instead of with "Let me express to you, my dear sir, the assurance of my profoundest esteem!" If, nevertheless, the foreigner insist upon buying his goods, the American knows not how to pack them for shipment, and he cannot translate pounds and feet into kilogrammes and metres! And the American has such a rude habit of attaching a sight-draft to his bill of lading, instead of allowing the foreign buyer to remit whenever he no longer needs the money!

If the seeker of plain truth will steer midway between these two currents, he is apt to find that the real situation is something like this:

(1) All the world is indeed full of export opportunities, but markets are won by battles and held by fortifications. There is an awakening in store for the manufacturer who imagines that Johannesburg and Buenos Ayres will throw away all their European stock as soon as the smoke of an American steamer is sighted.

(2) It is true that only a small percentage of American manufacturers allow the problems of foreign markets to toss them upon their beds at night, but they are not greatly to be censured on that account. When a man's factories are working full-time to fill orders from Chicago and San Francisco, their owner may be excused from lack of enthusiasm about Valparaiso and Shanghai.

(3) Certain European countries are getting more foreign trade than we are. They ought to, for they have been at it longer. But let us be glad, for they need it worse.

(4) Occasionally an American manufacturer does undertake foreign business in a crude way but that is not sufficient excuse for making more ado over him than over the ninety-and-nine whose shipments go not astray. It takes an experienced manager to meet the technical requirements of foreign trade, and some small shippers economize in the wrong place. With others, foreign orders are mere incidents that come unsolicited, and the volume of the business does not justify the installation of the machinery involved in an export department.

(5) But the real fact is — as any man may discover for himself in several ways — that the United States has already a tremendous share in the world's trade, and it is growing at a

most gratifying rate. Since columns of figures are easily interpreted in various ways, the evidence of this fact is offered in a more tangible form.

TEN OUTGOING STEAMERS A DAY

For the man seeking information about foreign trade, the water-front of New York City is far better than many libraries. If, for example, he will step into the office of a certain firm of shipping agents, he may examine a monthly list of sailings from American ports, giving the names of the vessels and announcing the firm's readiness to accept cargo for any or all of them. Here is a summary of one of these lists:

Freight-Carriers Sailing from New York in a Single Month

Destination	*Sailings*	*Destination*	*Sailings*
Liverpool	13	Marseilles	8
London	5	Bordeaux	1
Southampton	9	Malta and Venice	5
Bristol	5	Italian and Mediterranian ports	28
Manchester	2	Cuba and Mexico	16
Hull	4	Porto Rico	8
Glasgow	5	Panama	14
Dunkirk	3	Brazil	11
Baltic ports	3	River Platte	10
Hamburg	9	Halifax and St. Johns	4
Bremen	7	South Africa	3
Antwerp	7	Australasia	7
Rotterdam	10	Bombay and Calcutta	2
Cadiz and Barcelona	3	China and Japan	7
Havre	11		

Here are 220 vessels sailing within one month from New York to foreign ports, and the same list gives 97 overseas sailings from other ports of the United States — an average of slightly more than ten a day. An inspection of the lists for several months shows that this average is not exceptionally large. Everybody knows that steamers cannot make a regular practice of calling at a port from which they receive no return cargo. Granting that some may have called primarily to deliver freight, these ten vessels a day must sail with exports, else their owners would transfer them to other routes. And it may be remarked in passing that an average of ten shiploads of merchandise every day in the month is a creditable showing for any country on the map.

THE CARGO OF A SINGLE SHIP

But if the truth-seeker be skeptical about the outgoing cargo, let him leave the shipbroker's office and go down to the great piers. There he may watch the process of loading one of these vessels — not a bad method of studying foreign trade. Let us take as an example the *President Lincoln*, for the reason that it has accommodations for 1,450 passengers and must therefore be somewhat limited as to its freight capacity. Here are some of the items taken from the record of an ordinary cargo leaving the port of New York:

Corn and wheat, 170,000 bushels.
Lubricating oil, 3,362 barrels.
Lard, 6,225 barrels and tubs.
Dried prunes, 11,625 boxes.
Cottonseed oil, 700 barrels.
Phonographs, 174 cases.
Typewriters, 73 cases.
Sewing-machine woodwork, 867 cases.
Agricultural implements, 3,219 packages.

In all, sixty-two kinds of American products (most of them manufactured) were loaded into this one vessel. Many of these products stopped in Europe, but others were transferred to other ocean steamers, to be eventually transferred to river boats and thence find their way inland by railroads, by canoes, by donkeys, by elephants, by camels, and by human carriers.

The world-wide distribution of the cargo of a single outgoing steamer may be shown by another manifest, that of the *Graf Waldersee*, taken at random:

Germany: Hides, lard, garden seed, dried peas, cotton-seed oil, copper, evaporated apples.
Russia: Roofing paper, nails, scythe stones, cement, coke forks, machinery, hardware, ice-cream freezers, brass goods, agricultural implements, shade rollers, traps, cotton, carriages.
Roumania: Shade rollers, hardware, grindstones, combs, pumps, guns, toothpicks, pulleys, chair-seats, churns.
Spain: Brick molds, castings, cement, hardware.
Portugal: Books, cash registers, engines, cotton.
Bulgaria: Pumps.
Denmark: Lard compound, shade rollers, oars, hardware.
Finland: Bacon.
Sweden: Radiators, evaporated apples, churns, lubricating oil, varnish, lard.
Malta: Bolts and washers.
Greece: Wheels, books.
Turkey: Pumps, stoves, trolley-cars.
Asia Minor: Pumps.
Syria: Chairs, pumps.
Canary Isles: Tobacco.
West Africa: Tobacco, nails, shoes, bacon, dried fish, candy, pork, beef, oil stoves, dry goods, photographic materials, incubators.

East Africa: Organs, dry goods, type, grape juice, sewing machines, boiler hardware, roofing paper, safes, copying presses, tobacco, water tanks, machinery.

Egypt: Machinery.

Assuming that the nine other ships that left New York on the same date carried similar loads, it requires no high order of intelligence to see that the workmen of the United States did their full share toward supplying the world's needs for a single day.

THE SHIPPING LISTS OF MANUFACTURERS

Another way to investigate foreign trade — and it is a method so practical that its results cannot be misinterpreted — is to go from the docks into the export departments of some large manufacturers and ask to look over the records of their foreign shipments. The facts there presented in concrete form are just such facts as are given below. These examples are fair, for they do not include such large corporations as the Standard Oil Company, the United States Steel Corporation, the Singer Company, and others that engage in foreign trade in what may be called a wholesale way. These simply show what kind of success awaits the American manufacturer who actually goes out into the field and drums up his trade.

The makers of a well-known American automobile may be taken as one example, chiefly for the reason that the French are credited with being the fore-ordained manufacturers and exporters of these vehicles. An American company which had met with great success in the manufacture of sewing-machines entered this field a few years ago, and its factory was given the task of producing a car that would win in competition with those made in Europe. One such test was made in England last year. Nearly fifty cars of American and European manufacture undertook to climb a certain hill under specific conditions — and an American car, the by-product of the sewing-machine factory, showed the highest efficiency. The company has a branch office in London and claims England as one of its important markets, in spite of the proximity of Paris. Its triumphs in other parts of the world are equally significant. The traveler may find the automobiles of this company in Japan, where twenty-nine of them are used as passenger 'buses in the city of Osaka; in India, where another company operates ten on the 'bus lines between Rawal Pindi and Murree; in Java, where the Dutch government uses them for carrying the mails; and in such widely scattered cities as Mexico, Melbourne, and Johannesburg.

The sturdy American wagon is also a tireless globe-trotter, and it has gladdened the eyes of many Americans in the most unexpected of places. This fact will appear the more remarkable when it is considered that the freight and customs charges often amount to more than the original cost of the wagon; the foreign trade has not been gained by making a cheaper vehicle but by offering one whose stability had been proven under the most trying conditions. The following quotation, which reads like an extract from a manufacturer's catalogue, is in reality from the official report of Lord Roberts at the close of the Boer War:

"Wagons were imported for trial from the United States and these proved to be superior to any other make of either Cape or English manufacture. The wheels were of hickory and the metal work of steel. They were built by a great vehicle factory in Indiana. The superiority of these vehicles was doubtless due to the fact that such wagons are largely used in America for the carriage of goods as well as for military transport. The manufacturers have therefore learned by practical experience what is the best type of wagon, and what are the most suitable materials to employ in building it. It may be added that the wagons in question cost considerable less than the Bristol pattern wagon."

More than a million of wagons from this one American factory are rolling along the world's highways to-day. A complete list of the foreign cities to which they have been shipped would make a small-sized gazetteer. The following list shows only some recent shipments recorded on the books of its export department:

Chubut, Argentine Republic; Puerto Cortez, Honduras; Georgetown, British Guiana; Buenos Ayres, Argentine Republic; Cape Town, South Africa; Pretoria, South Africa; Benguella, Portuguese West Africa; Mombasa, British East Africa; Upper Congo District; Vladivostock, Siberia; Fairbanks, Alaska; Schwanden, Switzerland; Calais, France; Grayshott, England; Mexico City.

There are so many American manufacturers of machinery that have a world-wide trade that one despairs of being able to select the best example. The Pittsburg company whose installations are shown below is chosen

because the information happens to be more available than any other, not because of the volume of business.

THE RECORD OF ONE COMPANY

This company has supplied the De Beers Consolidated Mines of South Africa with an installation that includes fifteen mine locomotives and 500 arc lamps. The Bangkok Tramways Company in Korea, the Osaka Electric Light Company in Japan, the street railway company in Seoul, Korea, and the Port Arthur fortifications in Manchuria have been equipped from the same city of Pittsburg, U. S. A. Rio de Janeiro, Bogota, and Quito are but three out of many South American cities that derive their light and power by means of American machinery — not to mention such mining companies as the great Cerro de Pasco Company in Peru and the El Oro Company of Mexico. Canada, in the other direction, has been even more extensive in its purchases. These electric plants and many others that might be named represent investments of many millions of dollars and the achievements of this Pittsburg company in winning against European competition have been duplicated over and over again in other directions.

THE SOLIDITY OF OUR FOUNDATION

A very interesting fact may be verified by the investigator while in the offices of exporting manufacturers — that merit is the usual basis of the American's success in overseas markets. There are, of course, some makers of shoddy goods who gain a temporary foothold in the export field — as in the home field — by selling a product that is "just as good" at a price that is much lower than their competitors can afford. But these cheap vendors are the exception. The real foundation of the American's success is laid in the excellence of his materials and the skill of his workmanship. His goods stand the test of service: this is not merely the boast of his catalogue but it is his pride as a nation.

After the man in search of export truth shall have had the reality and the magnitude of American foreign trade impressed upon him at the dock and in the shipping offices, the monthly summaries of the Department of Commerce and Labor will be illumined with a great light. He will have learned to make an intelligent discrimination between exports of products more or less raw (many of which should never leave our shores at all) and products that represent American skilled labor. He will no longer be disturbed by the bugaboo of "the balance of trade," even when it is against us, for he will interpret imports as so much raw material for our factories, so much of food that we do not raise ourselves, and so much of luxuries that we can well afford to buy.

Here, for the benefit of those who are impressed by figures in bulk, is the summary of American trading for the fiscal year ending June 30th, 1907:

Summary of a Year's Trading

Total exports of merchandise . .	$1,880,000,000
(Increase over 1906, 137 millions)	
Total imports	$1,434,000,000
(Increase over 1906, 208 millions)	
Excess of exports over imports .	$446,000,000

Your Uncle Sam is, therefore, something of a world-trader.

If these great totals, standing alone, give satisfaction to the American reader, let him remember that these results have been obtained under a handicap more serious than that of any other exporting nation. The United States is less than a century and a half old. Our population and its needs have increased with such amazing rapidity that our factories have been taxed to keep pace with them. We have hitherto had but little time to study and to cultivate foreign markets. We have done most of our trading without foreign banking facilities, without special steamship lines, without salesmen proficient in the languages spoken in the marketplace. And we have often been confronted with an unwarranted prejudice against us and our goods.

But the market places of the world know us to-day, and know the kind of goods that we bring. A Yankee consulship is no longer an easy berth for a lazy editor who has rendered services to his party; he has much real work to perform, and there is a Bureau of Manufactures at Washington that uses his leisure hours in collecting information that will help the American to sell more goods. In our preliminary experiments we have learned this important lesson — that when an American manufacturer wants a foreign market with such intensity that he is willing to fight for it, as he fights for the home market, he generally gets it in the face of all of Europe.

In other words, we are learning to play the game.

THE LIFE OF A THOUSAND-YEAR PINE

THE HISTORY OF A COLORADO TREE, RECONSTRUCTED FROM DATA CONTAINED IN ITS TRUNK

BY

ENOS A. MILLS

ONE autumn day several years ago while exploring the Southern Rockies I discovered a venerable yellow pine. It grew within sight of the Cliff-Dwellers' Mesa Verde, which stands at the corner of four states, and, as I came upon it one evening just as the sun was setting over that mysterious tableland, its character and heroic proportions made an impression upon me that I shall never forget, and which familiar acquaintance only served to deepen while it yet lived, before the axe-men came. Many a time I returned to build my campfire by it and have a day or a night in its solitary and noble company. I learned afterward that it had been given the name "Old Pine," and it certainly had an impressiveness quite compatible with the age and dignity which go with a thousand years of life.

When one day the saw-mill man at Mancos wrote, "Come, we are about to log your 'Old Pine'," I started at once, regretting that a thing which seemed to me so human, as well as so noble, must be killed

I went out with the axe-men who were to cut the "Old Pine" down. A grand and impressive tree he was. Although lightning had given him a bald crown, he was still a healthy giant and was waving evergreen banners more than one hundred and fifty feet above the earth. His massive trunk, eight feet in diameter on a level with my breast, was covered with a thick, rough, golden-brown bark, which was broken into irregular plates. Several of his arms were bent and broken. Altogether, he presented a time-worn but heroic appearance.

It is almost a marvel that trees should live to become the oldest of living things. Fastened in one place, their struggle is incessant and severe. From the moment a baby tree is born — from the instant that it casts its tiny shadow upon the ground — until death, it is in danger from insects and animals and men. It cannot move to avoid danger. It cannot run away to escape enemies; fixed in one spot, almost helpless, it must endure flood and drought, fire and storm, insects and earthquakes, or die.

Trees, like people, struggle for existence, and an aged tree, like an aged person, has not only a striking appearance but an interesting biography. I had deciphered the autobiography of many century-old trees and found their life-stories strange and impressive. The yearly growth, or annual ring of wood with which trees envelop themselves, is embossed with so many of their experiences that this annual ring of growth literally forms an autobiographic diary of the tree's life.

I wanted to know "Old Pine's" autobiography. A veteran that had stood on the southern Rockies and struggled and triumphed through the changing seasons of hundreds of years must contain a rare life-story. From his stand between the Mesa and the pine-plumed mountain, he had seen the panorama of the seasons and many a strange pageant; he had beheld scenes of animal and human strife, as well as storms and convulsions of nature. Many a wondrous secret he had locked within his tree soul; yet, although he had not recorded what he had seen, I knew that he had kept a fairly accurate diary of his own personal experience; this I knew the saw would reveal, and this I had determined to see.

Nature matures a million conifer seeds for each one she chooses for growth, so we can only speculate as to the selection of the seed from which sprung this storied pine. It may be that the cone in which it matured was crushed into the earth by the hoof of a passing deer. It may have been hidden by a jay; or, more likely, it may have grown from one of the uneaten cones which a Douglas squirrel

had buried for winter food. Douglas squirrels are the principal nurserymen for all the Western pineries. Each autumn they harvest a heavy percentage of the cone crop and bury it for winter. Or this seed may have been in a cone which simply bounded or blew into a hole, where it found sufficient mold and moisture to give it a start in life.

FELLING THE GIANT

Two loggers swung their axes. At the first blow a Douglas squirrel came out of a hole at the base of a dead limb near the top of the tree and made an aggressive claim of ownership, setting up a vociferous protest against the cutting. As his voice was unheeded, he came scolding down the tree, jumped off one of the lower limbs, and took refuge in a young pine that stood nearby. From time to time he came out on the top of the limb nearest to us and, with a wry face, fierce whiskers, and violent gestures, he directed a torrent of abuse at the axe-men who were delivering death-blows to the noble tree.

The "Old Pine's" enormous weight caused him to fall heavily; he came to the earth with tremendous force and struck on an elbow of one of his stocky arms. The force of the fall not only broke the trunk in two, but badly shattered it. The damage to the log was so general that the saw-mill man said that it would not pay to saw it into lumber and that it could rot on the spot.

I had come a long distance for the express purpose of deciphering the "Old Pine's" diary when the scroll of his life should be laid open in the saw-mill. The abandonment of the shattered form compelled the adoption of another way of getting at his story. Receiving permission to do as I pleased with his remains, I at once began to cut and split both the trunk and the limbs and to transcribe their strange records. Day after day I worked. I dug up the roots and thoroughly dissected them, and with the aid of a magnifier I studied the trunk, the roots, and the limbs.

A PINE TREE'S DIARY

I carefully examined the base of his stump, and in it I found 1,047 rings of growth. He had lived through 1,047 memorable years. As he was cut down in 1903, his birth probably occurred in 856.

In looking over the rings of growth, I found that a few of them were much thicker than the others; and these thick rings or coat of wood told of favorable seasons. Ther were also a few extremely thin rings of growth In places two and even three of these wer together. These were the result of unfavorabl seasons, of drought or cold. These rings als showed healed wounds, and told of burns bites, and bruises, of torn bark and broke arms.

"Old Pine" received injuries not onl in his early years, but from time to tim throughout his life. The somewhat kinke condition of several of the rings of growth beginning with the twentieth, shows that a the age of twenty he sustained an injury whic resulted in a severe curvature of the spin and that for some years he was somewha stooped. From his diary I was unable t make out whether this injury was the resul of a tree or some object falling upon him an pinning him down, or whether his back ha been overweighted and bent by wet, clingin snow. As I could not find any scars o bruises, I think that snow must have bee the cause of the injury. However, after a few years he straightened up with youthfu vitality and seemed to outgrow and forge the experience.

A century of tranquil life followed thi experience, and the rapid growth durin these years tells of good seasons as well a good soil. This rapid growth also show that there could not have been any crowdin neighbors to share the sun and soil. Th tree had grown evenly in all quarters, and th pith of the tree was in the centre. But ha one tree grown close, that quarter of the ol pine nearest it would have grown slower tha the others and would have been thinner; an as a result of this, the pith would have bee away from the tree's centre.

When the "Old Pine" was just completin his one hundred and thirty-fifth ring of growth he met with an accident which I canno account for except by assuming that a larg tree that stood several yards away blew ove and in falling stabbed the "Old Pine" wit the ends of two dead limbs; for I foun embedded in his side two broken bits of dea limbs which probably were thrust into hi side by a falling tree. These wounds seen to have healed quickly but many annua rings of growth covered the tree before th outer ends of the broken stubs were com pletely buried. At last they were covered ove

and hidden. They thus remained for nine hundred years, when my splitting revealed them, about three feet beneath the bark.

It is possible that in falling the tree which stabbed the "Old Pine" may have also given him some additional bark wound. Anyway, a year or two after he was stabbed some borers and ants made a successful attack on him at a point a few feet above the place where the upper dead limb had stabbed. As chickadees and nuthatches are watchful to devour ants and other insects that attempt to make homes on or in trees, it seems likely that either these birds were scarce at the time the ants and borers appeared, or else some wound enabled them to get into the tree despite the vigilance of these birds. In the "Old Pine's" side, in the vitals just beneath the bark, the ants and the borers ate and excavated their deadly, winding ways. These insects established growing colonies to honeycomb and eat the "Old Pine's" vitals away. In a little while these colonies injured him and imperilled his life.

Fortunately relief came. One day the chief surgeon of all the Southwestern pineries came along. This surgeon was the Texas woodpecker. He probably did not long explore the ridges and little furrows of the bark until he discovered the wound or heard these hidden insects working. After a brief examination, probably holding his ear to the bark for a moment to get the location of the tree's foe beneath, he was ready to act. He made two successful operations. These not only required him to cut deeply into the "Old Pine" and take out the borers, but he may also have had to come back from time to time to dress the wounds by devouring the ant colonies which may have persisted in taking possession of them. The wounds finally healed, and only the splitting of the affected parts revealed these records, all filled with pitch and preserved for nearly nine hundred years.

Following this, an even tenor marked his life for nearly three centuries. This quiet existence came to an end in the summer of 1301, when a stroke of lightning tore a limb out of his round top and badly shattered a shoulder. He had barely recovered from this injury when a violent wind tore off several of his arms. During the year 1348 he lost two of his largest arms. These were large and sound and were more than a foot in diameter at the points of breakage. They were broken by a down-pressing weight or force, which we may attribute to accumulations of snow.

The oldest, largest portion of a tree is the short section immediately above the ground, and as this lower section is the most exposed to accidents or to injuries from enemies, it generally bears evidence of having suffered the most; and within its scroll are usually found the most extensive and interesting autobiographical impressions.

It is doubtful if there is any portion of the earth upon which there are so many deadly struggles as upon the earth around the trunk of a tree. Upon this small arena there are struggles fierce and wild; here nature is "red in tooth and claw." When a tree is small and tender, countless insects come to feed upon it. Birds come to it to devour these insects. Around the tree daily are almost merciless struggles for existence. These death-struggles occur not only in the daytime but in the night. Mice, rats, and rabbits destroy millions of young trees. While at their deadly feast, many a time have they been surprised by hawks, and then they are at a banquet where they themselves are eaten. The owl, the faithful nightwatchman of trees, often swoops down at night, and as a result some little tree is splashed with the blood of the animal that came to feed upon it.

The lower section of "Old Pine's" trunk contained records which I found interesting. One of these in particular aroused my imagination. I was sawing off a section of this lower portion when the saw, with a buzz-z-z-z-z, suddenly jumped. The object struck was harder than the saw. I wondered what it could be, and cutting the wood carefully away, I brought to light a flint arrowhead. Close to this one I found another, and then with care I counted the rings of growth to find out the year that these had wounded "Old Pine." The outer ring which these arrowheads had pierced was the six hundred and thirtieth, so that the year of this occurrence was 1486.

Had an Indian bent his bow and shot at a bear that had stood at bay backed up against this tree, or was there around this tree a battle among Indian tribes? Is it possible that at this place some Cliff-Dweller scouts encountered their advancing foe from the North and opened hostilities? It may be that around the "Old Pine" was fought the

battle that is said to have decided the fate of that mysterious race, the Cliff-Dwellers. The imagination insists on speculating with these two arrowheads, yet they form a fascinating clew that leads us to no definite conclusion. But the fact remains that the "Old Pine" was wounded by two Indian arrowheads some time during the summer.

The year that Columbus discovered America the "Old Pine" was a handsome young giant with a round head held more than one hundred feet above the earth. He was 636 years old, and with the coming of the Spanish adventurers his lower trunk was given new events to record.

Spanish chroniclers say that the Spanish explorers found the Cliff-Dwellers' houses in the year 1540. I believe that during this year a Spanish exploring party may have camped beneath the "Old Pine," built a fire against his base, and that some of the explorers hacked him with an axe. The "Old Pine" had distinct records of axe and fire markings during the year 1540. It was not common for the Indians of the West to burn or mutilate trees, and as it was common for the Spaniards to do so, and as these hackings in the tree seemed to have been made with some edged tool sharper than any possessed by the Indians, it at least seems probable that they were done by the Spaniards. At any rate, from the year 1540 until the day of his death, the "Old Pine" carried these scars on his instep.

In another quarter of the lower section of the trunk I found evidence that leads me to conclude that in the summer of 1881 a hunting or outing party may have camped near here and amused themselves by shooting at a mark on the "Old Pine's" trunk. Here I found, much nearer the bark, however, than the arrowheads, several bullets of modern rifles. These were imbedded around or just beneath a blaze which was made on the tree the same year in which the bullets had entered.

As the average yearly growth of the "Old Pine" was about the same as in trees similarly situated at the present time, I suppose that climatic conditions in the "Old Pine's" time must have been similar to the climatic conditions of to-day. His records indicate periods of even tenor of climate, a year of extremely poor conditions, occasionally a year crowded with a bountiful wood harvest.

But from 1540 to 1762 I found little of special interest. In 1762, however, the season was not regular. After the ring of growth was well started, something — perhaps a cold wave — for a time checked the growth, and as a result the wood for that one year resembled two years' growth, but yet the difference between this double or false ring and a regular one was easily detected.

The "Old Pine's" hard times experience seems to have been during the years 1804–5. I think it probable that these were years of drought. During 1804 the layer of wood was the thinnest in his life, and for 1805 the only wood I could find was a layer which extended only a few feet up the trunk of the tree, and this was exceedingly thin.

From time to time in the "Old Pine's" record, I came across what seemed to be indications of an earthquake shock; but late in 1811, or early in 1812, I think there is no doubt that he experienced a violent shock, for he made extensive records of it. This earthquake occurred after the sap had ceased to flow in 1811 and before it began to flow in the spring of 1812. In places the wood was checked and shattered. At one point, some distance from the ground, there was a bad horizontal break. Two big roots were broken in two, and that quarter of the "Old Pine" which faced the Cliff-Dwellings had literally suffered from a rock bombardment. I suppose the violence of the quake displaced many rocks, and some of these as they came bounding down the mountain-side collided with the "Old Pine." One fragment, of about five pounds weight, struck him so violently in the side that it remained imbedded there. After some years the wound was healed over, and this rock-fragment remained in the tree until I released it.

One morning, after I had finished my work of splitting, studying, and deciphering the fragments of the "Old Pine," I went to the sawmill and arranged for the men to come over that evening after I had departed and burn every piece and vestige of the venerable old tree. Then I went back and piled into a pyramid every fragment of root and trunk and broken branch.

Twilight was fading into darkness when I started on a night journey for the Mesa Verde, where I intended next morning to greet an old gnarled cedar which grew on its summit. When I arrived at the top of the Mesa, I looked back and saw a pyramid of golden flame standing out in the darkness.

"The Liner she's a lady, and if a war should come.
The Man-o-War's 'er 'usband, and 'e'd bid 'er stay at home;

But, oh, the little ca[illegible] that fill with every tide!
'E'd 'ave to up an' fig[illegible] for them, for they are England's pri[illegible]."

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THE FREIGHTERS OF THE SEAS

THE CARGO-BOATS THAT CARRY OUR COMMERCE TO THE WORLD-END PORTS AND CONNECT WITH RAILROAD AND CARAVAN — WHY THEY FLY ALL THE FLAGS BUT OURS

BY

EDGAR ALLEN FORBES

YESTERDAY a battleship poked its sharp nose across the bar, and the forts woke up the city to announce with thundering guns that the maker and the unmaker of destinies was in the harbor. Tomorrow a passenger-boat fifteen feet longer than any other may reach Sandy Hook fifteen hours or fifteen minutes earlier than ever happened before, and fifteen hundred whistles will declare that "an epoch-making event" has transpired. But when a cargo-boat carrying ten thousand tons more freight drops anchor near the lightship and signals for a pilot, nobody ever thinks of letting loose a gun or pulling a whistle-cord. It is lacking in "heart interest" and is without "news value."

But there is one man in the harbor whose eyes are glad when the freighter of the seas crosses his horizon — the Collector of the Port. The battleship sweeps majestically in and out, but the publican who sits at the receipt of custom is never a dollar richer. The liner's passengers grumblingly drop their toll into his strong-box, but it makes only the clink of small change. But when the groaning tugs pull and push the cargo-boat up to the warehouse on the docks, the Collector's men scoop up the revenue with shovels and the Bureau of Statistics oils all its adding machines. And who is this Collector of the Port? He it is who built the battleship, who is asked to subsidize the liner, and who fills the pay-envelopes of the President and the Congress. It is the Collector who makes our credit strong enough to dig a canal,

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SUEZ — A TRYSTING-PLACE FOR THE SHIPS OF ALL NATIONS

AN IMPERIAL MAIL STEAMER IN NEW YORK HARBOR
The *Kronprinzessin Cecilie*, flagship of the North German Lloyd fleet

Photograph by Pach Bros., N. Y.

AN EXPRESS STEAMER IN AMERICAN WATERS
The *President Lincoln*, of the Hamburg-American fleet, is built for cargo but it carries also more than a thousand passengers

THE COLLECTOR OF THE PORT OF NEW YORK, AND HIS STRONG-BOX
Colonel Edward S. Fowler, and the United States Custom House at New York

or reclaim a desert, or do anything else that we take a notion to do. Without the Collector and his strong-box, without the little cargo-boat that keeps it filled, the power-house that makes the wheels of government go round would soon run out of fuel.

The skipper of the freight-ship knows this, and he calmly smokes his pipe as the battle-ship splashes him with spray and the turbine-steamer leaves him astern. He remembers that twice in a generation have a nation's battleships been battered into scrap-iron — and the wheels of the nation went on turning. He remembers a time when every German liner in American waters fled from the French war-cloud and hugged its pier at Hoboken — and the planets continued to revolve in their orbits. But the skipper knows what would happen in all the nations whose shores are washed by salt seas were the smoke of the freight-ship no longer to darken the skies off-shore.

THE CARRIERS OF OCEAN FREIGHT

They make a motley fleet, these freighters of the seas. They fly all the national flags that warships and liners know, and some that never appear in the great naval reviews. They range in size from floating warehouses down to canoes that are poled

TYPES OF PIERS ALONG THE WATER-FRONT OF NEW YORK

HARNESSED TO ALL THE WINDS THAT BLEW

The seven-masted schooner *Thomas W. Lawson*, which was lost on the Scilly Isles, southwest of England. Its spread of canvas was 43,000 square feet

"IN THE BAY OF BISCAY, O!"
A freight-ship with decks awash in a rolling sea

A VIEW OF THE HAMBURG DOCKS IN THE FATHERLAND FIFTY YEARS AGO

THE NORTH GERMAN LLOYD SCHOOLSHIP "HERZOGIN CECILIE" ON A PRACTICE CRUISE

up and down unnavigable rivers, transferring their cargoes to luggers and barges that tranship at the open sea. Some of the freight-carriers are propelled by paddles; many still harness the winds in defiance to the genius of steam; some respond to the throbbing impulse of "twice three thousand horse that heed the one command." But they all belong to that indispensable part of the world's activity which we call by the name of Commerce — and most of their work is foreign commerce. People who are more familiar with land traffic than with the commerce of the sea may think of these ocean carriers in railroad terms:

(1) The fast Atlantic liners, like the *Mauretania* and the *Kronprinzessin Cecilie*, correspond to such express trains as "The Twentieth Century Limited" and "The Pennsylvania Special." They are built to carry mail and passengers at high speed, on regular schedules, and their cargo holds correspond to railroad baggage-cars.

THE KAISER WILHELM DOCKS AT HAMBURG TO-DAY

Showing the number of vessels of a single company that are often in the harbor at one time

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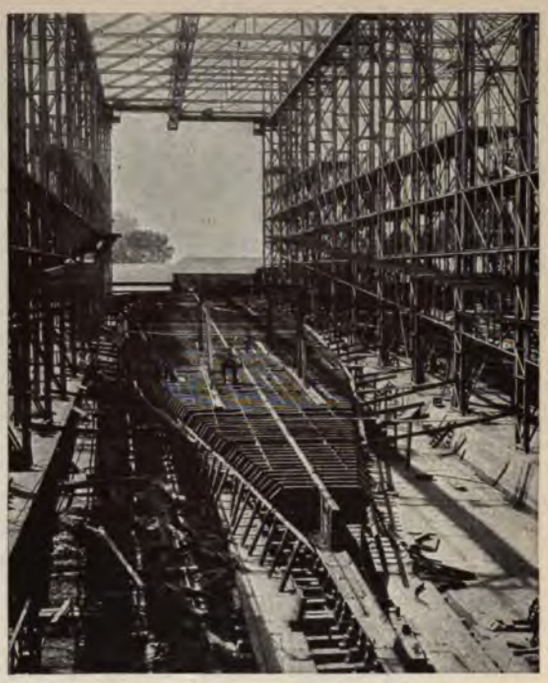
THE KEEL OF A VIKING SHIP



THE KEEL OF A MODERN STEAMER

(2) The regular cargo-steamers are the "combination" trains of a hundred branch railroads — a string of freight-cars with a passenger-coach attached. The cargo-boat runs on a regular line, conforms to schedule, and may carry hundreds of passengers; but its main object is the transportation of freight in large quantities.

(3) The nearest resemblance on rails to the ocean "tramp" is the box-car, seen more frequently on other tracks than its own. A New York Central locomotive at the head of a train of freight-cars belonging to twenty different roads, most of which do not touch the state of New York at all, will give a landsman a fair conception of a harbor full of "tramps." The nickname is an injustice, for the "tramp" steamer works just as hard as any other.

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STEAMSHIPS COALING AT THE DOCKS

On the left, at Nagasaki, by Japanese women; on the right, at Hamburg, by machinery

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THE VANISHED TYPE OF A DARING AGE

The exploring-ships of the fifteenth century were the advanced guard of the cargo-boats that now sail the same seas

The flag at the stern of a vessel is that of the country in which it is registered, and has no relation either to its owner or to the ports between which it runs. An ocean "tramp" carrying the British flag may never see England after it leaves the shipyards. Its log would start off something like this: "Loaded at Manchester with cotton goods and cutlery; passed through the Suez Canal and on to Hong Kong. Thence went 'in ballast' (without cargo) to the Dutch East Indies and loaded with sugar and coffee for New York. There picked up a load of machinery for Peru and Chile — a long voyage around the Horn.

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A FREIGHTER THAT FLIES THE AMERICAN FLAG
A United States Army Transport entering port

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WHERE THE COMMERCE OF LAND AND WATER MEET

Loading on the western coast of South America with nitrate of soda, discharged cargo at Puget Sound and reloaded with wheat and flour for Vladivostock." Thus it goes on its useful career — "coastwise, cross-seas, round the world, and back again" — until bought or chartered by a regular line, or until it reaches its final anchorage in a ship's graveyard, or floats away on an uncharted cruise as a menacing derelict. The "tramp" is at the service of anybody with a cargo that will fill it — and with, say, $200 a day to pay for it — and this unheralded class of shipping is credited with carrying as much as two-thirds of the world's commerce.

(4) There are as many other types of ocean-freighters as there are kinds of box-cars. Slow-going lumber schooners, capacious grain-boats (used also for ore on return trips), curious-looking whalebacks, grimy colliers, fragrant fruit-ships, stately tea-clippers, tank-ships that look like submarines, cattle-boats, refrigerator-ships — the list is long. Even the railroad flat-car has its sea-faring mate — the barge — and the noisy tug takes up the locomotive's work where the land drops into the sea.

The refrigerator-ship is one of the latest developments and it has already materially affected the export trade of two continents. While the perfection of this system enables us to ship choice porterhouse-steaks from Chicago

THE COMMANDER OF THE WORLD'S LARGEST FLEET
Captain Kaempf, Commodore of the Hamburg-American Line

THE FUTURE CAPTAINS OF THE NORTH GERMAN LLOYD
Cadets on board the Schoolship *Herzogin Sophie Charlotte*. After a long and rigorous training at sea and in school, they become junior officers on liners

LAKE FREIGHTERS ENTERING THE SAULT STE. MARIE CANAL
Through this gateway passes three times as much freight as through the Suez Canal

A FLEET OF WHALEBACKS IN THE "SOO" CANAL
An aggregate of more than 16,000 vessels entered and cleared at the ports of our northern border and lake districts in 1907

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A SECTION OF THE DOCKS AT SAVANNAH, THE WORLD'S GREAT RESIN MARKET

A WAVE-WORN GRAIN-BOAT IN SAN DIEGO HARBOR AFTER A LONG PACIFIC CRUISE

to Liverpool at a cost of only a cent and a quarter per pound, Buenos Ayres can do the same thing for about three-quarters of a cent, for there is no long railroad haul to the ship. More than a million quarters of beef went to Europe last year from each of these continents.

Copyright, 1901, by Thompson, Vancouver

THE WESTERN LINKS OF A GREAT COMMERCIAL CHAIN

Steamers at the Canadian Pacific docks, Vancouver, loaded with passengers and freight brought across the Dominion by trains that connect with transatlantic steamers at Quebec

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ANTIQUATED CHINESE JUNKS ON THE CANTON RIVER

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A FLOATING OPIUM WAREHOUSE, AT SHANGHAI

The carrying fleet numbers nearly a hundred vessels, with a total capacity of 9½ million carcasses. Cattle bought in Chicago on Monday may be slaughtered on Tuesday and kept in coolers until Thursday or Friday. By Monday the railroad has the refrigerator-car alongside the docks at the Atlantic coast, and the cargo is quickly transferred to a ship sailing on Wednesday. The following Wednesday it is in the London market, having been under constant refrigeration except for the two brief intervals of loading and unloading over the ship's side. This system is not only in operation on steamers engaged exclusively in the frozen-meat trade, but is a part of the equipment of the great passenger-boats. Its application to the overseas transportation of fruit has been so successful that the United Fruit Company is now said to be building a number of refrigerator-ships for that purpose. When the cold-storage systems of the countries on both sides of the sea correspond to that of the steamer that connects them, the world's kitchen will be vastly enriched.

THE SUPREMACY OF THE SEA

It is no idle boast of the British that

"There's never a flood goes shoreward now
But lifts a keel we manned,"

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FREIGHT-SHIPS AT ANCHOR IN ORIENTAL HARBORS

On the Chikiang River, Canton, China, and on the Bund at Yokohama

A SHIP GRAVEYARD

A DERELICT

for the Clyde and the Tyne have for centuries been the cradles in which the world's merchant marine was rocked. The Briton was crossing the Channel in his own boats before Cæsar's galleys rode in on the waves, and then as now it was the call of trade that gave cunning to his hands. Nearly six centuries ago, when an English king gave the ever-welcome signal for an attack against the French, 707 "shippes" assembled from all parts of the kingdom. In the "rolle of the huge fleete," among the "forrayne countries in this ayde," was one Irish vessel, but there was not a ship from a port called Liverpool. To-day, one vessel out of every ten that plow the seas calls Liverpool home.

The progress made by the British shipbuilder in a little more than a century may be seen at a glance by reference to the accompanying table.

The only achievement in shipbuilding which the British have not surpassed in size is that described in a Parisian legend, which was so large that the captain rode about the deck on horseback to give his orders, and a boy sent aloft into the yards came down a gray-headed man.

A Century of Progress

DATE	VESSEL	LENGTH	BREADTH	DEPTH	HORSE-POWER	TONNAGE
1801	*Charlotte Dundas*	50	18	8	10	(?) 20
1840	*Britannia*	207	34	17	740	1,156
1858	*Great Eastern*	691	82	48	8,207	18,915
1901	*Celtic*	700	75	49	14,000	20,880
1907	*Mauretania*	790	88	81	70,000	33,000

Milestones of Maritime Progress

1833	Sails to wooden paddles
1843	Wood to iron hulls
1850	Paddles to screw-propellers
1856	Simple to compound engines
1879	Iron to steel hulls
1889	Simple to twin-screws
1906	Triple-expansion to turbine engines
1907	Quadruple-screw propellers

It was a countryman of the builders of the *Mauretania* who (1578) seems to have been the first to work out the following plan for revolutionizing ocean traffic:

"You may make a boate to goe without care or sayle by placing a certain number of wheeles on the outside of the boate, in that sorte that the

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THE GUARDIANS OF THE CARGO — AND OF THE SHIP'S CREW

PEACE HATH HER WOUNDS NOT LESS DEEP THAN WAR

PART OF A WRECKED SHIP KEPT SEAWORTHY BY WATERTIGHT BULKHEADS

The *Suevic* after the two parts were separated

armes of the wheeles may goe into the water, and so turning the wheeles by some provision, and so the wheeles shall make the boate goe."

And it was in the same island-empire that a man discovered later (1801) that a 10-horse-power engine would also "make the boate goe" — and the first steam-propelled vessel in England was not a war-boat but a tug. Its record voyage was the towing of two 70-ton barges for twenty miles on the Forth and Clyde Canal in six hours. Thereafter it served no other useful purpose except to give Fulton the idea for his *Clermont*.

And it was another Briton who (1839) built on the Clyde the first iron, sea-going steamer and disappointed all the theorists that had demonstrated that it was impossible for iron to float.

THE "SUEVIC" AT THE DOCK IN SOUTHAMPTON

The larger section of the truncated vessel came into port under its own steam

THE END OF THE CRUISE

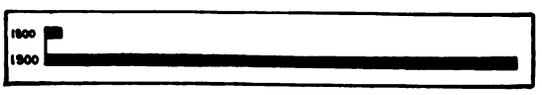
A photograph made from the deck of the vessel that collided with this one

A TRAGEDY OF THE ATLANTIC

This Genoese freighter was wrecked on the New Jersey coast and all but four of its forty men were lost

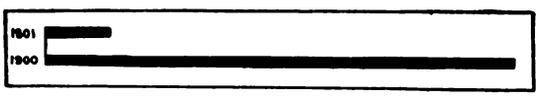
Through all the changes that have come in ocean navigation, Britain's shipbuilders have hammered away, making more and bigger ships every year. Since the construction of a large vessel is a matter of months and often of years, it will surprise those not informed of the industry to find that during the three years preceding 1907 three ships a day, on an average, were turned out of British yards, one of them a steamer. In spite of the rapid strides made by other nations, more than half of the world's output of tonnage last year was British. If the figures were arranged to include warships and vessels built for other nations, the proportion would be even greater. On the basis of tonnage, the United Kingdom last year made five times as many ships as Germany, and more than three times as many as the United States.

(The gross registered tonnage of a ship is found by calculating the solid contents of its hull in cubic feet and dividing by 100. From this quotient must be subtracted the space occupied by machinery and woodwork and cabins in order to arrive at the net tonnage. This is usually considered in cubic feet, for the freight-rates are usually based upon measurement — forty cubic feet being considered the equivalent of a ton. But a man shipping forty cubic feet of lead would probably find that the rule has exceptions.)



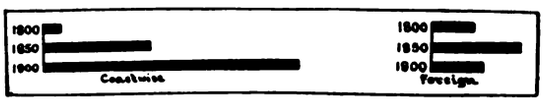
A CENTURY OF THE WORLD'S SHIPPING

The increase in effective carrying capacity was from 4 to 50 million tons



A CENTURY OF BRITISH SHIPPING

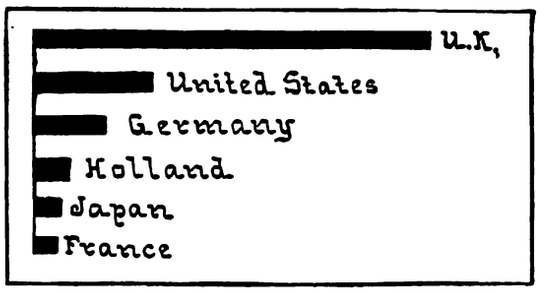
The increase was from 1.8 to 14.3 million tons



A CENTURY OF AMERICAN SHIPPING

The diagrams represent the tonnage carried in American vessels. In 1800 we carried 87 per cent. of our exports; in 1900, 7 per cent.

The Briton's supremacy of the seven seas is more convincingly shown by the merchant vessels that to-day carry his flag into every part of the earth except the poles. The old

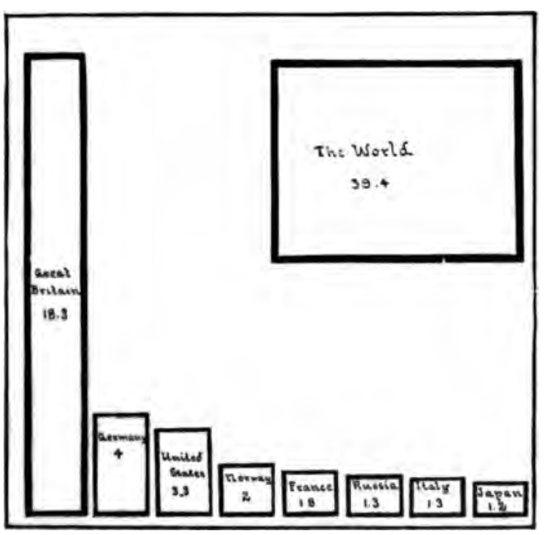


THE LEADING SHIPBUILDERS OF 1907

adage about the cobbler's children running barefoot does not fit here, for more than half of the world's steamships and nearly half of the total steam and sail tonnage fly the British flag. The total tonnage of the United Kingdom now exceeds 18 millions, while that of its nearest competitor (Germany) is only 4 millions, and the United States has about 3½ millions.

Apply the measure in another way: Who owns the world's fastest merchant steamers? Of the 58 that can make at least twenty-one knots an hour, Great Britain owns 38 (65 per cent.); 7 carry the Belgian flag; 6 are French; and 5 are German. The United States owns two — the *St. Louis* and the *St. Paul*.

The capital of the British Empire has also the distinction of being the world's largest port, with New York a close second. Incidentally, the best-known name among the men



THE WORLD'S MERCHANT MARINE

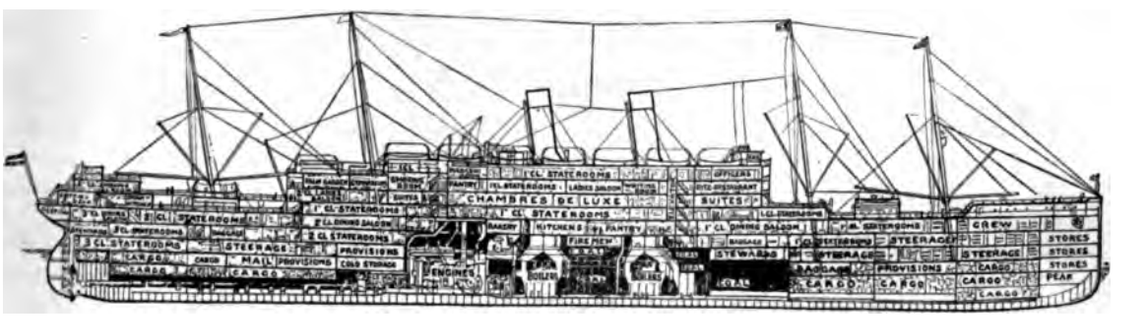
The figures represent millions of gross tons; only steamers of 100 tons and sailing vessels of 50 tons are included. Figures from "Bureau Veritas, 1907–08."

who go down to sea in ships is English — Lloyd's — for Lloyd's "Register" is an authority everywhere and that firm of underwriters insures most of the shipping. The house dates back of 1668, when one Edward Lloyd kept a little coffee-house that came to be the centre of maritime intelligence. There is now a Germanischer Lloyd and an American Lloyd. The rating which Lloyd's gives a ship after inspection powerfully affects its market-value and its insurance. Some idea of the magnitude of the marine insurance business may be gleaned from the estimate in 1901 of the gross earnings of the world's mercantile marine — $850,000,000. Britain's share was placed at $450,000,000, a plum-pudding worth while.

Gone is the golden era of great British trading companies, which not only owned the cargo that went and came overseas but owned also the ships that carried it. At least two centuries of the history of England's merchant marine was virtually the history of one of these, the British East India Company, whose monopoly of Oriental trade was contested by a sturdy fleet of 200 Dutch freighters. Those were the days when the cargo-boat, richly laden with pounds of pearls as well as pounds of pepper, had to fight its own battles. Sometimes it won, as when a staunch East Indiaman repulsed five foreign ships-of-war; sometimes it lost, as when the French once captured a great fleet of 600 merchantmen bound for Baltic ports. A British admiral of to-day has less honor than the captains of the old East Indiamen received. Five voyages were usually sufficient to enrich him, as well as the owners of his ship.

As the path of empire was pushed outward, the trading company found its most lucrative occupation gone. In its place have come the great steamship companies that carry the merchandise of others. The names of a dozen of these companies are known around the world, but the ownership of British steamships has not yet become so concentrated as in Germany. Perhaps the best known in America is the Cunard Company, but the "P. & O." (Peninsular and Oriental) is the most famous abroad. Its twin-screw steamers now anchor in the roadstead where the full-rigged East Indiamen of long ago tugged at their cables.

It is more than a curious geographical study to stroll along the pier at Southampton or Liverpool, or to follow the winding Thames from the London Docks past the West and East India Docks and on to the Royal Albert. It is a powerful impulse in the direction of commercial imperialism. Not only do the fluttering flags, the forests of masts, and the belching funnels suggest foreign commerce, but the very names of the vessels become a call to world-wide conquest. Yonder, soon to steam away for Continental ports, lie the *Velasquez*, the *Oporto*, and the *Malaga*. Here, filling their bunkers with coal for the Mediterranean, are the *Busiris*, the *Algerian*, and the *Moorish Prince*. Straining at their anchor-chains as the call of the East comes clearer, are the *Persia*, the *Simla*, the *Ping Suey*. The crews of the *Sierra Leone*, the *Barotse*, and the *Nigeria* are preparing for their "misty sweat-bath 'neath the Line." And so on, around the world. The national appeal comes in such names as the *British Prince*, the *Briton*, the *Saxon*, and the *Empress of Ireland*, while a long list of *Clans* from *Campbell* to *Macallister* shows the Glasgow pride. An hour or two spent on these docks will convince any



CROSS-SECTION OF A 25,000-TON PASSENGER STEAMER

It shows the relatively small space reserved for cargo

man that the chief glory of the battleship is its service as a convoyer of merchantmen down the wet sea-lanes of the Empire.

BRITAIN'S ONLY SEA RIVAL

Long before the Kaiser's first flag was made, before a German Empire was scarcely dreamed of, the state of Hamburg was the commercial rival of the state of Bremen, and the lucrative carrying trade of the port of New York was the juicy bone of contention. With the birth of the Empire in 1868 came the German ambition to hoist the new flag over home-built ships and show it in every port. And in these forty years that ambition has largely been realized. In 1871 Germany owned 150 steamers; by 1902 it had 1,463. It now has 42 shipbuilding docks on the coast, 13 on the Baltic, and 13 on the North Sea, most of them for merchant vessels. Counting by numbers, last year these shipyards turned out 435 steamers and 516 sailing vessels — more than two a day — and there were 473 unfinished ships on the stocks, their tonnage being greater than that of the 951 completed during the year. To equalize the tonnage of 67 steamers and 145 sail that were built in 1907 for Germany in foreign shipyards, the Germans constructed 112 ships for other nations.

As with the United States, much of the shipbuilding activity is due to the huge volume of inland navigation. The Germans, being well supplied with rivers, worked out this simple mathematical demonstration:

(1) A horse traveling three miles an hour on a level road can haul . . . 2 tons
(2) The same horse on a horizontal railroad can pull . . . . 15 tons
(3) With the same effort on a waterway, the horse can haul . . 60 to 100 tons

Result: nearly four-fifths of Germany's inland freight-trade is to-day carried by river instead of by railroad. In the decade from 1882 to 1902, its inland fleet trebled. On the Rhine alone, at the end of that period, there were 1,123 steamers and 8,379 sail.

Germany is the land of big steamship companies. About half a dozen own more than half of the entire merchant marine. The concentration is more evident in the fact that nearly half of the number of ships and about four-fifths of the loading capacity of merchant vessels under the German flag belong to the two early rivals, Hamburg and Bremen. An account of German shipping is, therefore, largely the story of two companies.

THE WORLD'S GREATEST FLEET

While Great Britain may claim the chief distinctions of the maritime world, the largest single fleet carries the Red, White, and Black, and its house-flag is the Hamburg-American. Its sixty-eight distinct services carry the world's commerce into and out of nearly every important port of all the continents. If the entire fleet were assembled in one harbor, it would present an imposing array of 160 ocean steamers, 8 others under construction, and 215 river steamers and harbor craft — a total of 383 vessels, with a gross tonnage of nearly a million. If this fleet were welded into one mammoth steamer, it would be nearly five miles long, more than a mile wide, and about a mile deep. To load it with bales of cotton would require the average yield of two million acres; it could take the wheat-crop of three-million acres; and half a billion feet of lumber would not fill it. This is the commercial hyphen that has connected Hamburg and America for sixty-one years.

The first Hamburg-American ship arrived in New York harbor in 1847, when the rate of postage to Europe was thirty cents a half-ounce, when Castle Garden was an amusement resort, when Broad and Beaver Streets were the dry-goods districts, and when lower Broadway between Canal Street and the Astor House was "the great white way." That first vessel was the *Deutschland*, a sailing ship of 717 tons; the *Deutschland* of to-day registers 16,502 tons, and is nearly 9,000 tons smaller than the *Kaiserin Auguste Victoria*. This steamship line, whose flag is as familiar in Montevideo, Shanghai, and Sierra Leone as in Baltimore and Puget Sound, has made its New York home on historic soil. A tablet erected on its new offices says that it "marks the site of the first habitation of white men on the island of Manhattan." There it was that Adrian Block, commander of the *Tiger*, built four huts in 1613 after his ship was burned. This same sea-dog is also credited with the first vessel made by Europeans in this country — the *Restless*, launched in 1614.

But the home and the history of the Hamburg-American line are of far less importance than the opportunities which this one unit of

transport offers to American shippers. Its 150 liners and cargo-boats may be of no more importance than an equal number of other vessels, but their assembling under one house-flag makes them more convenient. This fleet touches regularly at the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, Newport News, Galveston, San Francisco, and Puget Sound. It brings every one of these widely distributed American ports into direct communication with nearly all the world. If there were no other boats on the seas, an American exporter would find a list of about 500 ports where his goods might be landed. He might not only ship to every seaport that he could name, but he could get through bills-of-lading to scores of such unheard-of ports as Pulo Weh, Siam; Soloo, East Indies; Ahwaz, Persia; Nossi Be, East Africa; Half Jack, West Africa; Bedsted, Denmark; Yxpila, Finland; and Oernskoeldsvik, Sweden.

The capacity of these great steamers is enormous. The express steamer *President Lincoln*, shown on page 10,548, has a gross register of 18,500 tons. After deducting cabin space for 1,450 passengers of all classes and bunker space for 2,000 tons of coal, there remains 785,000 cubic feet for cargo. If loaded exclusively with one kind of freight, it could carry any one of the following quantities: 590,000 bushels of wheat, or 628,000 of corn; 31,000 bales of cotton, or 15,000 tons of copper; 65,000 barrels of oil, or 825,000 boxes of dried fruit. In actual practice, however, this steamer would carry more than fifty varieties of cargo, from green apples to radiators.

The classification of ocean freight calls for the services of an expert, for it makes a vast difference in the freight-rate whether the contents of 600 cubic feet be an automobile or a live elephant. The manager of the department is called upon to solve perplexing problems at times. There is a colony of Greeks in New York, for example, whose religion requires that their bodies shall eventually rest in the consecrated ground of the Near East. The cost — about $100 — of transporting a man's remains is beyond the reach of most of the families of the poorer classes. The theologian and the freight-agent pooled their wits in the problem's solution; the priest decreed that the largest bone in the body should eventually be *shipped across* to the hallowed soil, and the freight-agent agreed to enter it on the ship's manifest as "a natural history specimen."

THE SECOND GERMAN FLEET

The American shipper could also avail himself of another German merchant fleet whose gross tonnage exceeds that of the United States Navy. From the port of Bremen come the big ships of the North German Lloyd, whose first steamer arrived in New York on the Fourth of July, 1858 with 100 tons of freight and one-first-cabin passenger. Fifty years later it has a fleet of 93 ocean steamers, 51 Indo-Chinese coasters, 57 river steamers, 2 training ships, and 200 lighters and tenders. It has twenty-seven separate services, and the combined voyages of its ships in a single year are more than 200 times the circumference of the earth. Its engines reduce the world's coal supply at the rate of a million and a half tons annually. This line touches the United States at New York, Boston, Baltimore, Savannah, and Galveston. Its flagship is the *Kronprinzessin Cecilie*, of 20,000 gross tons. Though best known throughout the country as a passenger-line, this fleet transports enormous quantities of freight. So recently as 1892, three-fourths of its tonnage was built in Great Britain, but since that date about nine-tenths of it has come from the rapidly developing shipyards of the Fatherland.

The North German Lloyd is unique in its method of training officers. In the old days, a man traveled a long and arduous road before he reached the quarter-deck. A year on a sailing vessel gave him the degree of "ordinary seaman"; a second year made him an "able seaman"; then he served two other years before he could take the mate's course of instruction. This finished, he was ready to serve as a one-year volunteer in the German Navy. But that did not make him a captain. Two years more on an ocean-going vessel and he was sent back to the school of navigation before he could get his certificate as first mate or captain.

In 1900 the company introduced a new method by commissioning a training-ship, a four-masted barque, with accommodations for fifty cadets. In 1902 another was required. These cadets cruise about the world, picking up cargoes like a plain "tramp," and then they serve for a year on an ocean steamer. Then, after a few months in the Naval School,

they receive appointment as fourth-officers. Two years later they go to school again and get their captain's certificates. But that does not mean that they get command of a ship. The company requires a captain's certificate from applicants for the position of third-officer on its liners. Promotions to higher grade then depend upon vacancies, as well as upon efficiency, and length of service.

AMERICA ON THE HIGH SEAS

And now shall we go to some cross-roads of the ocean — Gibraltar or Suez, Singapore or Honolulu — and sit by the gateway to watch for the smoke of great freighters that fly the American flag? Not yet. The great ships that flap the Stars and Stripes in the face of the salt-wind carry cargoes of ten-inch guns and projectiles that crash through steel walls at a distance that wearies the eye. These are our pride of the sea — these and our racing yachts and our Lake freighters — and no flag that floats over whirlwinds of destruction has such a long and unbroken record as that of the American Navy. A few months ago, in London, an auctioneer sold a faded flag for an enormous price. Why? Because it was one of the rarest relics in the world — the captured flag of an American ship-of-war. It brought a higher price than the trumpet that sounded the charge of the Light Brigade at Balaklava.

The conspicuous absence of American freighters from the high seas disturbs a great many minds. It ought to. While it is pleasant to think of 1,200 ships passing out of New York harbor in a single year, all loaded with American merchandise for world-markets, our satisfaction is marred by the fact that only seven of them carried our flag. The news makes good reading for the Western farmer when a year's shipments of American wheat from Baltimore are summed up — 50,000,000 bushels in a single year — but the average citizen is more impressed with the report that only 10,000 bushels sailed under the flag that sheltered the wheat while it grew. It is hard for most of us to appreciate the humor of the United States Senator who recently drew a picture of nineteen battleships, ten cruisers, and eight torpedo-boats protecting eight merchant ships on the Pacific.

But there are better reasons than these for being concerned about our decline at sea. The War Department has officially reported that it would require 238 chartered vessels for transport use in the event of a war on the Pacific, and would need 38 of them within fifteen days. The distinguished Senator says that we could not get fifteen ships in fifteen months on the Pacific — and international law forbids our buying of other nations after hostilities are begun. Our Japanese friends are said to have 550 steamers that could be converted into army transports at short notice.

There are also some strong business reasons why the United States should have something else afloat besides battleships. About 60 per cent. of our foreign trade is carried by the British, and another large section by the Germans. Suppose these two nations should go to war with each other? Under the contracts between the ship-owners and their governments, most of the best Atlantic steamers would be taken over for transport purposes, and the others would be afraid to venture out to sea. In the Boer War the British merchantmen were in no danger of capture, for the enemy had no navy; yet that conflict took from the trade routes 250 British vessels, of more than a million registered tons, and ocean freight-rates were marked up as high as 30 per cent. in some cases.

Regardless of reasons, everybody would like to see a great fleet of American freighters — everybody except foreign steamship owners. Can we build them? Is it "in us" to build ships? The answer is written in history:

(1) Eleven years before an Englishman discovered that an engine would "make the boate goe," the following advertisement appeared in the Philadelphia papers:

THE STEAM-BOAT

Is now ready to take passengers, and it is intended to set off from Arch Street Ferry in Philadelphia every *Monday*, *Wednesday*, and *Friday* for *Burlington*, *Bristol*, *Bordentown* and *Trenton*, to return on *Tuesdays*, *Thursdays* and *Saturdays*. Price for passengers, 2s. 6d. to Burlington and Bristol, 3s. 9d. to Bordentown, 5s. to Trenton.

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(2) Fulton took a look at the first British steam-propelled vessel, came back to the Hudson, and built one that had a much more distinguished career.

(3) In 1813 a British fleet of six war-vessels, commanded by a captain who had fought with Nelson, was a source of inconvenience on Lake Erie. A young American captain who had never seen a sea-fight undertook to remove the obstruction. When he arrived

at the Lake, he saw most of his future fleet growing luxuriantly out in the forest. Omitting minor details, a battle was eventually fought and Perry sent this message to the Government: "We have met the enemy and they are ours."

(4) The Baltimore clippers of the old sailing days were the equals of anything that crossed the seas. The *Pride of the Ocean's* record between England and China in 1857 is the sailing record to this day.

(5) Can we build fast yachts? Sir Thomas Lipton please answer.

(6) Does anybody question our ability to build battleships? If so, he is respectfully referred to the Minister of Marine, at Madrid.

(7) About 97 per cent. of the freighters of the Great Lakes are American-built. There were 3,000 of these counted in the Census of 1906, with a tonnage more than half as great as that of the entire merchant fleet of Germany, and they earned $65,000,000 that year in freights. A man skilled in the use of figures says that they carry enough grain in a year to feed a city of a million people for sixty years; and that their cargoes of coal would make a train 2,259 miles long. Among facilities for loading and unloading steamers quickly, the grain and ore-docks of the Lakes are surpassed nowhere. The facts about American coastwise shipping are equally convincing. We have an army of 50,000 men engaged in the industry of building ships, and there is perhaps no shipyard in Britain better known than Cramp's of Philadelphia.

WHY OUR MERCHANT MARINE IS SMALL

If the American can build ships, then why is his flag absent from the seas? Is it because the Ship Subsidy Bill was not passed? The answer may be found in the 2,000 books and pamphlets on that subject in the Library of Congress. It may be that a subsidy would be a good thing for our mercantile marine, but he is either a very wise or a very interested man who advocates it without qualification. One of the most generous subsidizers (France) stands fifth in the order of tonnage, while the world's largest single fleet (the Hamburg-American) has been built up without subsidy. Great Britain aids less than 5 per cent. of its merchant vessels, and nearly all of that aid goes to two lines whose vessels have been built according to Government specifications, to be available for use in war.

The real reasons why the United States does not have a large fleet of liners and freighters engaged in foreign trade seem to be these:

(1) Men with large capital can get greater returns from other kinds of industrial investments at the present time.

(2) It costs a great deal more to build ships in America. Labor constitutes from 50 to 75 per cent. of the total cost of a ship, and skilled labor in American shipyards receives nearly twice as much as abroad. Shipbuilding materials are also much higher.

(3) Our laws forbid Americans from purchasing foreign-built ships and operating them under the American flag.

(4) It costs more to operate a vessel under American registry. The monthly pay-roll of captain and six officers amounts to $740 where it would be only $410 under the British schedule, and the law requires that the sailor on an American vessel shall be fed up to the standard of living ashore. The increased cost of operation has been given as the reason why the United Fruit Company's fleet has been transferred to the Norwegian flag. Among British sailors there is a hoary-headed joke to the effect that when a Norwegian vessel is seen signalling, nine times out of ten the message is: "Two days out and short of provisions."

(5) A steamship cannot profitably engage in foreign traffic unless it can quickly get cargoes both ways. It is easy to get loads out of New York, but our tariff wall makes it impossible in many parts of the world to get a return cargo.

But none of these reasons should be taken too seriously. With the ships of the world only too anxious to do our marketing, we do not now feel the pressing need of owning our own carriers. When the time eventually comes that the nation does feel that urgency, we shall have ships in a hurry — big ships and many of them.

We shall not stop building ships that destroy, but we shall begin in earnest to construct cargo-boats and swift liners. With the light from the sails of the old clippers and from our racing-yachts reflected against the black smoke of the American-built Pacific fleet, who ventures to say that we shall never rank higher than second?

Just now it is more fun to cut two continents apart and make a lane for the freighters of other seas.

OUR ERA OF COMMERCIAL GREATNESS

ALREADY LEADING THE NATIONS IN MANUFACTURING, THE UNITED STATES HAS ENTERED UPON A PERIOD OF OVERSEAS EXPANSION

BY

OSCAR S. STRAUS

SECRETARY OF THE DEPARTMENT OF COMMERCE AND LABOR

THE spirit of commerce is the most wholesome stimulus that has yet pervaded the nations, because it rests upon mutuality and upon economic laws; it is constructive and not destructive, and it promotes the welfare and happiness of nations, as well as international peace and good-will.

We are living in a commercial era — an era that does not depend upon force of arms, but upon markets; an era which makes for peace and prosperity. The interests of commerce are broader than the country; they are as wide as the world.

Commerce and industry stand to-day on a higher plane than in any other age and contribute more to the true grandeur of nations and to the true welfare of the masses than either the military spirit or the spirit of conquest. Commerce has placed more of the comforts of life within the reach of the masses than has been enjoyed by them in past ages. I say this not overlooking the fact that there is still much misery, and that the demand of labor for better wages and for more of the comforts of life is more urgent than ever before. But it is one of the indications of progress that the masses seek higher standards of life and living.

OUR FACTORIES OUTGROWING THE NATION

It is interesting to note that our manufacturing industries have grown so much faster than the nation itself that we have had a large surplus of their products to sell abroad. Less than half a century ago the United States ranked fourth among the manufacturing nations; to-day it stands at the head of the list. The investments of capital in these industries have grown from a billion dollars in 1860 to about fourteen billions in 1905. The wages and salaries paid have risen in that time from a little more than one-third of a billion to more than three billions, and the value of the manufactures produced has advanced from less than two billions to practically seventeen billions. The manufacturers represent one-eighth of the entire wealth of the country, giving employment to more than 6,000,000 people.

In the extension of our commerce, both foreign and domestic, we have enjoyed peculiar advantages in the plentiful supply of materials furnished by nature — such as cotton, iron, copper, wood, and coal — and in our extensive transportation facilities which enable us to carry these products economically to the seaboard; yet, all these would not have enabled us to attain the results noted, were it not for another factor, namely, our laboring classes, which are equipped with such intelligence and skill by reason of the opportunities afforded to rich and poor alike in this free and liberty-loving land. Twenty-five million willing workers have come to the United States to coöperate in our industries during the last century, and more than one-half of the persons to-day engaged in our manufacturing and mechanical industries are of alien birth or natives of alien parentage. Not only have we attracted this large and needful supply of labor, but with these immigrants have come hundreds of new industries from foreign countries, which their skill has planted and their labor has developed.

As examples, let us take the silk industry, employing 80,000 workmen, paying $27,000,000 annually for wages, and each year turning $60,000,000 worth of imported raw materials into $123,000,000 worth of finished products; the cotton industry, producing annually goods worth $456,000,000 and giving to the export list goods worth $53,000,000; the confectionery industry, paying $12,000,000 a year in wages and turning out products worth nearly $100,000,000; the glass-cutting and staining

industry paying annually $4,500,000 in wages, and many other industries.

It must not be overlooked that in this connection the better conditions surrounding labor make for better results. A high rate of wages, within economic limitations, is a powerful lever to reach a low cost of production, which practically rules to-day in the industries of the United States. The cheapest labor is that labor which is most productive, and, as an eminent authority says, "the more the forces of cultivated intelligence, conscientiousness, and hopefulness shall infuse themselves into human industry, the more abundant and valuable the results, the greater the sum of human happiness, and the more stable the political institutions of a country."

AN ERA OF INTERNATIONAL GOOD FEELING

The infusion of sturdy foreign blood into our national arteries through the channels of immigration has not only given us labor for our mines, fields, and factories, and enabled us to produce the wealth which has entered into the upbuilding of our foreign trade, but it has resulted in contributing directly to the extension of that trade by strengthening, and even creating, that friendly sentiment or good-will on the part of foreign nations which in my opinion is a greater economic and international factor than is generally supposed; acting also as a commercial stimulus by drawing after it and reflecting back to the mother country a greater commercial intercourse and international good-will than we may realize.

The friendly sentiment existing between the United States and all English-speaking nations is, of course, the result, to a great extent, of a common parentage and the use of a common language as a medium of intercourse. In the case of our dealings with the Germanic nations, there is not only the close relationship between the Anglo-Saxon and the Germanic, but also the presence in this country of millions of representatives of those nations. The number of immigrants admitted into the United States from Germany alone since 1820 exceeds five millions, and the number of natives of that country residing in the United States at the present time is nearly three millions. The number of Austrians living in the United States at the date of the last census was more than a quarter of a million; of natives of Holland, more than 100,000; and of natives of Norway, Sweden, and Denmark, more than one million; while of natives of the United Kingdom the total in 1900 was 2¾ millions, and of Canada more than one million.

Trade, like water, finds its own level, and follows along the highways of least resistance. A good trade agent will get more business than a general at the head of a great army or an admiral in command of a great fleet. These may be useful to keep the highways open, but not to make trade. Good will; good, cheap goods; and a good knowledge of the market are the three requisites for good trade.

If we build our tariff walls too high in this country, we will encourage high walls on the other side, which are known by the name of "discriminating duties." We are striking that wall now. No one foresaw this more clearly than President McKinley, and no one has shown the way more clearly how to overcome the existing and increasing obstacles that lie in the path of our foreign commerce. He recommended reciprocity and a revised tariff to meet the changed and changing conditions in order to gain our proper share of the foreign markets.

No man in our country is better versed in the history of nations than President Roosevelt, and his leading policies are founded upon a philosophy derived from his extensive and thorough historical knowledge. He recognizes the fact that that nation is the most effective peacemaker which is best equipped for self-defense. He would have a navy the very existence of which would be a silent but effective messenger of peace. He recognizes also that, besides being well armed, nothing is so conducive to peace abroad as peace at home. Therefore, the Nobel Prize, that was awarded to him by the Norwegian Parliament for having contributed most in promoting the world's peace, was devoted by him to a Foundation for the Promotion of Industrial Peace.

AN AMERICAN COUNCIL OF COMMERCE

For the purpose of promoting the foreign and domestic commerce of the United States, and to establish closer relations between the Department of Commerce and Labor and the commercial and industrial bodies of the country, I have counselled the trade organizations of the country to unite in the organization of a National Council of Commerce. The intention is to make the Department more helpful to the commercial interests and to

gain through concert of action those benefits which can not be adequately secured by independent effort. At the initial meeting in December last, held to organize the National Council, I said what I may well repeat here, that no country has a greater number of progressive men of high ability and great experience engaged in its commerce and manufactures than our own, and there is all the more reason on that account why the Government should avail itself of their coöperation.

The general purpose of the National Council of Commerce is twofold. First, to keep the Department of Commerce and Labor informed of the needs and desires of the business world; and second, to keep the business community informed regarding the work of the several departments in relation to matters affecting domestic and foreign commerce.

Much good has come from the establishment of closer official relations between the commercial interests and the departments of commerce in foreign countries, and there is abundant reason to believe that the National Council of Commerce will be an important factor in fostering and extending both the domestic and the foreign trade of the nation.

The plan contemplates that this National Council, representing every section of the country and every industrial and commercial interest, should have a bureau at Washington under capable administration, which should be in constant touch with the several departments—namely, the Departments of Commerce and Labor, State, Interior, and Agriculture—which come into relation with the industries and with domestic and foreign commerce.

It has been said with much truth that the sceptre of nations has passed from camps to commerce and is controlled not by the booted and spurred captains of dragoons, but by the captains of commerce and industry.

THE LARGE CORPORATION

I

THE STANDARD OIL COMPANY

ITS DELIVERY CARTS AT THE FOOT OF THE HIMALAYAS, IN THE INTERIOR OF CHINA, AND IN ALMOST INACCESSIBLE PLACES — ITS STRUGGLES AND ITS ALMOST WORLD-WIDE TRIUMPHS — THE LARGE SUMS IT BRINGS HOME TO AMERICA

BY

C. M. KEYS

(The first of a series of articles on great corporations)

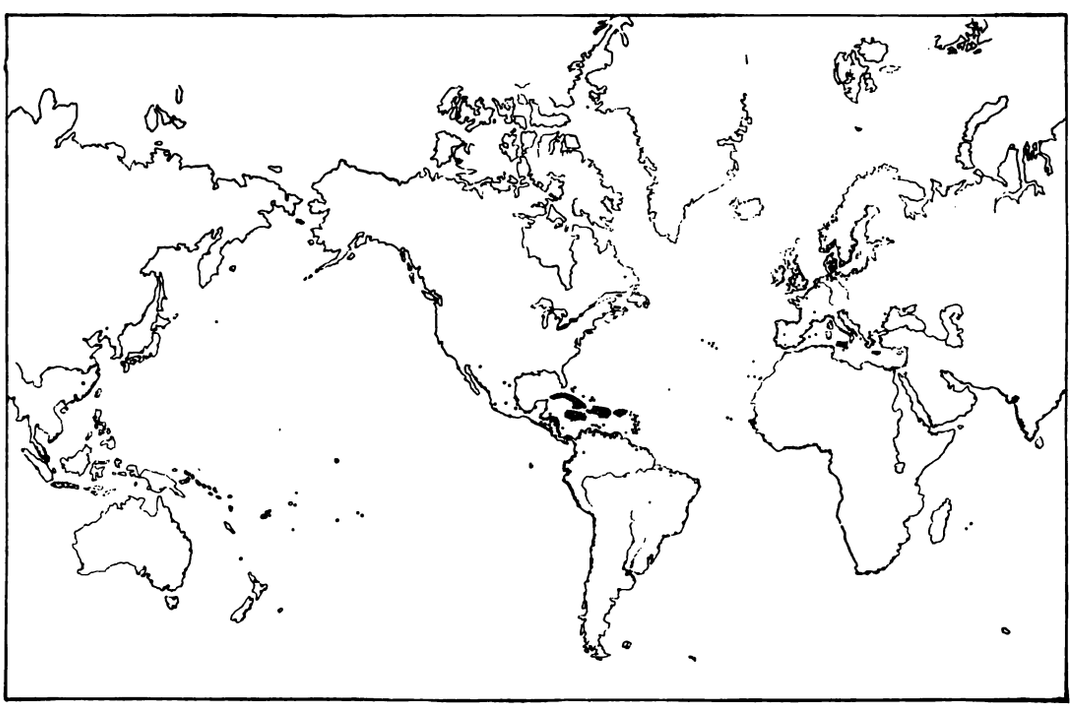
THE STANDARD OIL COMPANY has made almost the whole world its market. It has come nearer to achieving this task than any other manufacturing and trading company on earth; and the most interesting and the least known phase of its business is its export activities. I, therefore, make these the subject of this first article.

Of every hundred barrels of crude oil

This article and those that follow it are based on months of study given to the business of the Standard Oil Company, as disclosed by its officers, agents, and employees.

They do not touch the controversial aspects of the subject, but are wholly descriptive.—C. M. K.

produced and refined by American labor in American territory, sixty go out through the ports of exit and are scattered abroad in all lands. In return, there comes a steady stream of gold, from almost every nation of the globe. Since 1880, the year when the Standard went actively to work in the foreign field, the aggregate value of oil and oil products sold in the foreign markets has been close upon $1,700,000,000. Nine dollars out of every ten of it have come to this country to pay the American workman for his labor, to pay the American producer for his crude oil, to give to the American capitalist the reward of his courage and his foresight.



THE STANDARD OIL STATIONS AROUND THE WORLD

The dots show the centres from which the adjacent territory is supplied

It is well to speak of the Standard and its men, the men who work for it. Much was heard last winter of a great industrial recession in this country. It is said that a million men were thrown out of work. It may be true: but they were not Standard men. The plants of the Standard have run full — more than that — they have paid overtime steadily through the whole period covered by this depression. In the very months of the acutest disturbance, October and November last, the directors of the Standard Oil, in anxious session, determined to initiate a building campaign, a series of labors that should run through the winter and spring, giving employment to thousands of men who otherwise would not have had employment. They counted on the fact that a depression, if one came, would make it easier to get men for work. They planned this new construction and this reconstruction not as philanthropy but as business. It goes on to-day. In more than one locality it has measured the difference between normal conditions and depression.

We hear of wages cut in the steel trade, the cotton-mills, the copper mines, and other manufacturing lines. Standard Oil has cut no wages. Through this trying period it has employed more men, paid larger aggregate of wages, and brought into this country from the ends of the earth a larger amount of foreign money than in any similar period in its history.

You might have gone, as I went, during this trying period to the Devoe plant, in Long Island City. You would have found the factory working an hour "overtime" each day, paying men at the usual extra rate for their time. You would have found the daily capacity of the can plant about 83,000 tins

a day, instead of the normal 73,000. You would have found great ships, steam and sail, lying at the docks, loading with case oil for India, China, Cape Town, or Java. Every still in the seaport towns, every machine in the factories was working overtime and at high pressure to create the merchandise that was to play so large a part in maintaining the American balance of trade throughout this trying year.

THE FIGHT FOR FOREIGN MARKETS

The foreign markets have been gained in mighty commercial battles. To gain the European markets, the Standard sounded the depths and scaled the heights of European diplomacy; and the depths lie deep and the heights are slippery, as any man can testify who has tried to introduce an alien product in competition with the Russian, the German, or the British products in their home markets. In Russia, Roumania, and Austria-Hungary, absolute barriers against American refined oil were met. The duty in Russia is 16.9 cents a gallon; in Roumania 8.88 cents; in Austria-Hungary 14.34 cents. France and Spain put up a differential duty that made the importation of refined oil prohibitive but the importation of crude oil easy; crude oil is therefore sent to them, and it is manufactured in those countries and sold in their markets.

Quite recently there came back to this country a man who had been the principal agent of the Standard in India for the last fifteen years. His story is a vivid tale of commercial conquest. There is not, in all India, a single hamlet in which men do not know the name of the "Ish-standard Oil." In the little villages hidden in the jungles of the Hyderabad, and on every highway clear up to the snowline of the Himalayas, you may meet the little wagons of the traffic, stencilled with the sign "Standard Oil Company of New York." At a hundred points where population centres, you may find oil stations — square-built, flat, one-storied structures — carrying that same motto. They may be small, but they are as clean as are the stations on the turnpikes of New Jersey or the main roads of England. The men that guard and tend them are brown and black and yellow, Sikhs, Gurkhas, Mohammedans, Hindoos, wild races of the northern mountains and southern jungles. It is no matter; the product that they guard and sell comes out of the soil of our own states and the money that they collect and send home feeds the population of many a little town out in Illinois, or in Kansas, or in California.

At Darjeeling, under the shadows of Mount Everest, there is a station. It is in the wild hill country, the home of untamed Gurkhas, savage little men who make, they say, the best and bravest of Britain's Indian forces, but primitive, simple, and wicked. Thence the goods go out along the mountain trails, carried on men's shoulders, winding up to the small cities that lie within the mountain passes, following the same hard trail that the British followed in their late expedition into Tibet. It is hard to say how far the limit lies. The Standard sells no oil in Tibet itself, because it cannot reach it. Yet some of the oil that it sells on the ranges of the Himalayas finds its way, in bottles and small cans, across the three great passes, each more than 17,000 feet above the sea, that call a halt to all organized traffic in that direction.

ON THE HILLS AND PLAINS OF INDIA

In little country boats, on the backs of elephants, slung along the sides of bullocks, the cans of this traffic pierce the great forests of the upper Ganges, the Indus, the Godavari, and all the rivers of the plains. In Khyber Pass, the gateway to Afghanistan, there is a station. More than that, Peshawur, lying within the eastern mouth of that towering pass, is perhaps the farthest bulk station. In other words, oil is sold at Peshawur out of wagons. That oil has never seen a package. It has been handled in bulk from the crude-oil wells of Kansas right into the little lamp of the savage Afghan on his hills. It is piped from the wells to the storage tanks in the Kansas fields; piped again from those tanks to the refinery; manufactured there; loaded into tank steamers at the docks; carried to Kirachi on the northwestern corner of India; pumped ashore into tank cars on the railroad; carried by rail to the station and tanks at Peshawur; and peddled in little country carts, hauled by bullocks, in the wild country round about that station.

The main landing stations in India are four: Kirachi, Bombay, Madras, and Calcutta. At each of them there are rail connection and tank cars, and at each of them there are also plants. The main difference between the plant at Kirachi and the plant at Long Island

City is in size and in the character of the workmen.

At Kirachi is run probably one of the strangest American industrial plants there is. It is manned by wild Baluchs from Baluchistan, and equally wild men from the valley of the Indus. The machines have to have little fences of wire netting built around them to keep the workmen from getting their baggy trousers or their long hair caught and torn off. They are not stupid, but the difficulty of handling them, with their race prejudices, their caste, and their religious differences, may be imagined. As many difficulties have been met and have been conquered in India as in any land. In the first place, there is a tax of 1.66 cents a gallon in favor of the Burma oil. At times railroad discrimination of the most pronounced type, in favor of Russian and Burmese oil, has been met. That was removed when discovered. The English are fair. In the native states, they let the Standard put its stations on the railroad concessions, under the protection of the British flag. They give protection of the most tangible sort. In the wild out-stations the men go armed, of course, with heavy revolvers and rifles at times. In most respects, the Standard has an equal chance with any and all competitors.

A difficulty of extraordinary quality is the immense diversity of tongues throughout the empire. There are sixty different languages, with an infinity of dialects. An agent, on one trip, took out of Bombay an interpreter who spoke seven languages. A few hundred miles south, none of them was of any use. He had to find a native who spoke English, and make his contracts and receive his reports through this language. On top of this comes the racial difference, making it practically impossible to trade with the Mohammedans through a Hindoo agent, or *vice versa*. None of the native religions objects to the Christian, but they detest one another, and business is delayed and crippled at times to a quite extraordinary degree on account of this.

India itself is a problem. It is, however, merely the greatest problem in southern Asia, not the only one. It will surprise many people to hear that American oil is shipped to Rangoon, transported in country boats to Mandalay, and sold in competition with oil produced within a few miles of Mandalay by the Burma Oil Company. That looks like bravado, but it is merely business. It would be paralleled if the Burma Oil Company should sell its products in the streets of Pittsburg in competition with Appalachian oil.

AMERICAN GOODS IN QUEER MARKETS

All along the southern shore, from the Red Sea to Australia, the ships ply their trade. You might land at Bahrein Island, in the Persian Gulf, and study a new and novel method of industrial transportation. The Island was old in civilization before Phœnicia was settled, centuries before the Exodus from Egypt. The ships lie miles off on the horizon and send their cargoes of case oil in shore in lighters — flat, light boats. Two miles off shore they meet the coral banks. A long-legged breed of white donkeys, native to the place, furnishes the next stage of the journey. They wade out to the ships, load up with case oil, and wade ashore again. If a passenger wishes to land, they carry him. They are the grand trunk railroad into Bahrein Island. Yet the Standard does a good business there, for the people must have light, and they have learned whence to seek it.

At Bushire, at the very head of the Persian Gulf, there is a distributing station. It supplies Persia, lighting temples of Shiraz and Ispahan, fighting its way north until it meets the Russian product, coming down from the Caspian Sea. Another main station at Muscat, Arabia, scatters oil across the deserts, up through Oman and Elphasa. Bagdad is reached from the head of the Gulf. There is no trail, no track, too dim or hard for the feet of the caravans. The oil of the stills in New York may pierce wherever the feet of men may carry it. No limits are recognized save the limits of commercial possibility.

India, Arabia, Persia, the Celebes Islands, Sumatra, Java, and Borneo are dotted with the tins. The natives use the oil, and then they use the tin. It goes into many strange uses. A Standard agent bought, at Muscat, Arabia, a bird-cage made of a five-gallon tin. The sliding door, the perch, the ribs, the little cups for feed and water, all were fashioned cunningly out of the one tin. You may find them holding incense in the temples of the gods along the hills of India. You may find them offered in disguise, in the bazaars of Beirut, Lucknow, Calcutta, or Madras, as dishes for rice and curry. At times they are lamps, water-bottles, milk-cans, storage for food against rats, safes for silver money — in

fact, there is hardly any reasonable use to which the tin can does not lend itself.

The "Elephant Brand" tins go to India. The brand means quite a lot; for the elephant is a royal animal, and carries prestige with him. For a similar reason, another company has adopted the dragon as a brand for Chinese oil. One has to meet his customers on their own ground when one goes among them selling.

In the islands of the sea, oil is used in millions of gallons a year. Java is a little island, with more than thirty million people living in it. Every few miles along its coast, you may find a Standard store. Into every crowded village of the Island these people pierce. In the Celebes Islands, the main station is at Macassar, but the country boats, strangely built and more strangely manned, carry the burden away up into the little peninsulas of the north. Here, as in all the Orient, the Standard sells to the natives in quantity, letting them handle the product to the individual consumer. They account to the agent and are paid on commission. The methods vary. There are no iron-clad rules in the service. The best means are used to obtain the best results.

THE STORY OF TWO FAILURES

This is a story of commercial triumph. The Standard has not merely held its own; it has won in these strange markets of the Orient. Yet, even in India, it has not always won. There was a time, indeed it is not past, when it was feared that the work might be all undone in India. It was thought, when the Burma industry began to take on life, that prohibitive tariffs might shut American oil out of these great markets in India. The duty stood against foreign oil. That could be met, but no one knew how much further India might go. The Standard sought to protect itself by buying leases in the Burma fields, and manufacturing Burma oil itself. It sought rights to that end.

Burma refused. The matter was carried to the Indian Government. The Viceroy confirmed the Burmese decision, in curt and unmistakable terms. The Hon. Joseph H. Choate, the American Ambassador, took the matter to Lord Lansdowne, in England. He confirmed the ruling. The idea of owning leases and developing them was therefore abandoned; the Standard sought land near Rangoon, and made application for the right to build a refinery and storage plant. This was refused. The same steps as before were taken and finally were refused by the British Government. That Government took the ground that the Anglo-American treaty of 1815 does not include India. That means simply that there is no commercial treaty between India and the United States, though the annual interchange of business is more than fifty million dollars a year.

Nothing more could be done unless the American Government asked for a revision of the treaty of 1815, to include India. This, for good reasons of its own, the American Government has not done. It therefore has not been possible to get any share in the Burma oil industry; nor is there any law to allow any American to start an industry in India except by courtesy.

The whole field has been secured by edict to the Burma Oil Company, a powerful aggregation of English and Scotch capital. It is a prosperous company, paying dividends of 15 per cent. on its common stock in 1907. It has modern methods and equipment, and is protected by the duty. It is the Standard's chief rival in India, and it is a worthy rival.

COMPETITION IN JAPAN

Possibly this Burma episode might be considered a defeat for the Standard Oil Company. It is not the only one met in the Orient. Years ago, at the very start of the foreign campaign, men were sent into Japan to study that market. It was thought that with its dense population and its progressive spirit it would undoubtedly become a rich and profitable market. That was correct. It is a good market. Two things, however, have happened since that early day. One is the imposition of a duty of 4.785 cents per gallon of refined oil; and the other is the development of oil resources in Japan itself.

The duty on oil was raised by the extraordinary war taxes of 1904 by the imposition of a tax on the consumer amounting to about 1.6 cents per gallon. Coupled with the practice of economy by the people after the great war and the activity of the home industry, this caused a decline from about $5,000,000 to about $3,900,000 in the amount of American oil shipments, of all sorts, into Japan. The decline would probably have been greater had it not been that Asiatic Russia practically ceased to ship oil to Japan in the interim.

When it looked as though Japan were going

to produce its own oil, Standard Oil sent men to investigate. They reported the fields rich in possibilities. The American industry faced a contingency somewhat similar to the one met in Burma. It was met in the same way. A large interest was bought in the International Company of Japan, and the Standard undertook to carry on a refining industry in the empire. The fields were disappointing and, within the last year or so, a large part of the International property has been sold to the Japanese interests. One hears quite a bit about Saghalien and its undeveloped oil fields, but the Standard is not in that country.

THE PITCHED BATTLE FOR EUROPE

So much for occasional disappointments. It is as well to outline, for the benefit of those people who imagine that the oil markets of the world are at the mercy of the Company, the opposition that it met in Europe, in Asia, and in Africa. It may be particularly interesting to many people to learn that the very process that has made the Standard what it is, the process of concentration and elimination of cost, is to-day going on with full force in every other country that produces oil. While the Standard is strengthening its mercantile efficiency, its great rivals are steadily gaining that efficiency, gaining from its experience, profiting by its mistakes; and backed, in nearly every instance, by their respective governments.

Russia, the most dangerous rival, can produce under normal conditions more crude oil than the United States. The oil is of fair average quality. Its location gives it a most decided advantage over American oil in the markets of Europe, particularly in the congested countries that surround Russia on the west. Hitherto this industry has lacked one important element, and only one. It has lacked a powerful central organization, to weld its scattered interests into one, to make it, as it were, an army instead of a collection of strong men. That final step has lately been taken in the Russian oil industry.

Hereafter, the distribution of the Russian and Roumanian oil products will be as scientific, as wide, as economical as it can be made. The most powerful banking interests of Germany combined in the backing of the new league. In addition, a second grouping of the great British interests in the Russian fields has taken place, to work in close harmony with the German consolidation. This British consolidation will meet American oil in the markets of the United Kingdom, while the German combination will meet it elsewhere in Europe.

The Standard Oil Company claims that it has not one dollar invested in the Russian fields. About the year 1900, when the big oil-fields of this country seemed to be working toward exhaustion and the Russian fields actually passed us in production, it did contemplate the venturing of large sums of money in Russia. Then came the new fields in Illinois, Oklahoma, and Kansas; and the Standard turned back to our own country. It may serve to illustrate the venturesome nature of the business to remind the public that had it gone into Russia at that time it would have been in the thick of the warfare, riot, and pillage of the years that have intervened.

The Standard's foreign holdings of oil-fields are, in fact, very small. It has some interests in Roumania and elsewhere, but it is rather in the nature of a nucleus for future necessities should they arise than in the nature of a deliberate attempt to take control over any foreign fields. Its capital, in fact, has gone almost solely to the development of American resources and the marketing of these developed resources at home and abroad.

One may go into Austria-Hungary, and find nearly 90 per cent. of the production of the Galician fields monopolized by a single consolidation, backed by great banking interests. This consolidation is a marketing as well as a producing company, modeled along the lines that mark the Standard and that have made it so successful as a pioneer in the oil trade of the world.

TO WIN THE ORIENTAL MARKETS

Turn then to the Dutch East Indies, the third largest producer of crude oil in the world. At a meeting of the Shell Transport and Trading Company of England last year, the chairman made the announcement that the Asiatic Company, which practically monopolizes the distribution of Russian and Dutch East Indies products in the Orient, is owned one-third by the Shell Company, one-third by the Royal Dutch Company, and one-third by the Rothschilds and their friends. The meeting was for the purpose of consolidating the Shell Company and the Royal

Dutch Company. That was done. To-day the Standard meets in the Orient a solid fighting aggregation of the strongest capital in England and Holland, including the Rothschilds.

So much for competitors. It is recognized that they are worthy foemen. Everyone knows the skill and patience of the German, the Englishman, and the Hollander in the seeking and the making of a market for his goods. Everyone knows, too, that the best of scientific knowledge will be devoted to the mastery of the difficulties of refining the stubborn oils of Russia, Burma, and the Dutch East Indies. These people are sure to bring to their task as great skill in refining as the Standard has brought to its own task in the various states of this Union. There is to be a mighty struggle to keep the product of American fields well in the lead in the fight for the world's markets. The Standard is prepared for it, and expects to win it. If it does not, oil lands in the Middle West will sell for a song and a dozen prosperous towns of the Western states will fall back into the wilderness.

This is a mere outline of the opposition that has been met in the business around the world. Even more vitally interesting than this is the method pursued in opening up new markets, in getting a foothold in old markets, in teaching the savage races the value of light. It would make an interminable story to tell of the slow conquests, long-protracted struggles, pouring out of millions of dollars for new kinds of equipment for daring experiments, for the exploitation and test of some idea, seemingly fantastic, perhaps, that seemed to promise a widening of the markets.

HOW THE STANDARD WINS ITS WAY

When the Standard first turned its attention to the foreign field, in 1879, the export trade was handled almost altogether by commission traders. They bought oil from the refiners, Standard and others, and shipped it abroad. They did quite a big business. In the five years prior to 1880 they shipped to the Orient nearly 200,000,000 gallons of products. It was believed that this amount could be greatly increased if the Standard only knew how to go about it. To get that knowledge, five years of hard work were spent. Men were sent abroad, gathering statistics, interviewing potentates, laboring at weird and wonderful native capitals for the repeal of strange duties and restrictions, studying native religions and prejudices, doing probably the strangest commercial missionary work that ever was done by an American concern.

It may seem a simple matter enough to ship oil to China and sell it to half a billion people. It will not seem quite so simple when it is stated that in many small communities the mandarins actually made it a capital offence to be caught using petroleum; that native priests made the oil anathema; that huge commercial guilds, which exist at large throughout the empire, boycotted every merchant who dared to handle it. Many of the mandarins, or local authorities, were themselves deeply interested in commercial enterprises based on the sale of native vegetable oils for illumination. They used their authority, therefore, to shut out the "foreign devil" and his oil, which threatened such dire things to the native product.

Those difficulties and others like them were met in China, Japan, India, Siam, the Soudan, Liberia, Morocco, the Congo, and every other land that seemed worth while. They were not conquered in a day. They are not conquered yet. Not much headway against them will be made during the lifetime of the men who to-day are carrying on the fight. If, in their generation, China began to use as much petroleum, per capita, as is now used in this country, the oil-fields of the world would not suffice to meet the call.

The Standard continued to sell oil to commission men until about 1885. At that time the oil fields of Europe and Asia began seriously to threaten the trade. The Standard people were alarmed over the European prospects early in the 'eighties and it was about 1885 that it was determined to spend a large amount of money to make the cost of oil in Europe low enough to compete with the Russian and other fields, no matter what they might become.

Prior to that time, the refiners used to sell cargoes of from 2,000 to 10,000 barrels of oil to the commission men, who shipped them to correspondents abroad, who, in turn, sold them to the trade of Europe. The barrels ultimately found their way back to this country, were re-coopered and filled again and again.

THE LONG STRUGGLE FOR ECONOMY

To cut out commissions was the first step. The second, which came immediately, was

the beginning of oil transportation in bulk instead of in barrels. The Standard went into Europe not without much trepidation. It hurried, but hurried conservatively, knowing that it was taking an enormous risk with its money. In nearly every country of Europe it either had incorporated new companies in its interest, or had made friendly alliances with existing companies in the country. Through them it gradually built up a system of dis-

"HAPPINESS, PROSPERITY, AND LONG LIFE"
The Chinese advertisement of a Standard Oil lamp. The translation is given on pages 10586 and 10587

tribution somewhat like the home system. It built refining plants, put tank-cars on the railroads, established great central distributing stations for storage in bulk, planted small stations wherever needed.

That progress has been slow but steady. To-day there are in Europe nearly 70 importing stations where oil is received in bulk and stored; 4,000 interior stations connected with selling agencies; 16 manufacturing plants; 2,000 tank cars; 4,000 tank wagons on the highways; and about 150 coasting vessels, tugs, barges, and other floating equipment. In fact, the distributing plants in the United States have been duplicated in Europe. There are more wagons retailing oil in that country than in this.

At the very outset, it was necessary to cut out the expense of barreling the oil sent to the importing stations of Europe. The first tank steamer went across the Atlantic in 1885, carrying about a million gallons of oil. It was an anxious time. No one knew whether a great step in advance had been made, or whether it would be a failure. Everyone knew that on the success or failure of that test depended the question whether or not America would be able to hold the oil markets of Europe.

HOW THE TRADE WAS REVOLUTIONIZED

As a matter of fact, of course, that experiment revolutionized the whole petroleum industry. In the old days, a fair rate of freight on oil to Europe was about $7 to $14 per ton, and the use of the barrel was lost sometimes for a full year before it came back. When the tanks started, $6 was considered a fair rate. In 1906, the rate was considered fair at about $2.50. The waste in barrels was from 2 to 3 per cent. In the tanks, it is less than one-quarter of 1 per cent. The change that has been made in the method of transportation is perhaps best shown by the following table of exports in barrels and in bulk to Europe in the years named:

Exports of Oil

	IN BARRELS	IN BULK
1885	273,559,614 gallons	859,250 gallons
1906	3,637,779 gallons	628,313,450 gallons

The twenty-three years intervening have been spent in constant experiment looking toward still further reducing the cost of transportation. The latest step in carrying oil to Europe is the inauguration of the towing of barges across the ocean. For some years tows were used in the coastwise service from Texas ports to New York. Last year there was built in England a new ship, the *Iroquois*, to carry oil herself and to tow a barge, also carrying oil. In one cargo she carries about 6,000,000 gallons, or 120,000 barrels. The largest single ship carries 75,000 barrels. This experiment is expected still further to cut down the cost of this transportation. It may fail, but that is not likely. The risk of losing the barge in heavy weather is minimized by the use of

IN THE PLANT AT KOBE, JAPAN

Where coolie labor is cheap, the problem of local movement is simple. The two men wearing star-spangled coats are foremen. The company fills its foreign offices with natives whenever practicable

the wireless telegraph, and by her ability to handle herself under canvas in case she has a mishap that causes her to be cut adrift.

THE WORK OF A MARINE DEPARTMENT

The fleet to-day consists of 60 tank steamers, 12 additional steamers and barges in the coasting trade, 5 cargo steamers, and 19 sailing vessels for case oil, and a host of tugs and barges in local use. In addition, the Standard regularly charters about two ships a week from other owners. Nearly all the ships are under the British, German, and Dutch flags. It costs about 30 per cent. less to build ships in Europe than here; and foreign ships, of course, cannot fly the American flag. A large part of the fleet, therefore, is owned by the foreign connections of the Standard Oil.

THE OLD AND NEW IN CHINA

The story of the attempt to supply modern lamps at 7½ cents apiece is told in this article. The picture shows the new American model in contrast with some types of the old Chinese lamps

ON THE INLAND SEA OF JAPAN

At Itosaki and other convenient points in Japan, the Standard Company has bulk-oil stations similar to the one here shown. It is typical, in fact, of the bulk stations all over the world

The Standard had been carrying oil to Europe in its own tank steamers for fifteen years before it turned its attention to the Oriental trade in case oil, with a view to cutting down the cost of transportation. The cases of oil consist of two five-gallon cans in a box.

THE INTERIOR OF A JAPANESE STOREHOUSE

The storage plants of the Standard Oil Company all over the world are solid, substantial, and as far as possible fire-proof. They are object-lessons in stability

THE STANDARD'S OFFICE AT MADRAS

The eastern coast country of India is supplied from Calcutta and Madras; at both cities the Standard has complete plants

A PEDDLER'S CART IN OSAKA, JAPAN

As in India, so in Japan, oil is sold direct from American wells to local lamps without having been in a package

The Standard used to charter British ships at the rate of about 37 to 45 cents a case, or from 3.7 to 4.5 cents per gallon. In 1900, it built its first ship for this service. Now the freight rate is from 21 cents to 23 cents a case, and it can get all the ships needed for the service at those rates. Practically, it cut the freight cost in two. That is the sort of waste that must be eliminated.

The Standard insures its own tank steamers and much of the tonnage under canvas. It pays; therefore it is done. Another place where the marine department saves money is in return cargoes. The case-oil vessels, of course, take general cargo for their return from the foreign ports. It may seem strange to the layman that the tank steamers do the same. At a dull period, tank steamers have been sent from New York to Antwerp with a cargo of corn; wheat has been carried in the tanks from Bombay to Europe; rice from Rangoon to Europe; sugar from Java to the United States. On the San Francisco route, the ships carry a great deal of tea and dried

A CENTRAL OFFICE IN CHINA

The trade of the Chinese Empire centres around large warehouses located at the seaboard and at ports far up the rivers, where bulk steamers from New York unload their cargoes

ON THE HOOGLY RIVER, INDIA

A boat loading tin oil at Budge Budge, near Calcutta, for the little cities of the Hoogly and the Ganges. Thousands of country boats of all sizes and types of construction carry the trade up to the headwaters of every river in the Orient

fruit from China to ports on the Pacific Coast. Tea and sugar are perhaps the most susceptible of all freight to the odor of oil. Yet no complaints are received. When a tank steamer is pumped out in an Oriental port, her tanks are washed down and cleaned out with a deodorizing preparation. A false bottom is put in each compartment — and the ship becomes an ordinary cargo vessel, bidding for any and all sorts of tonnage. The Standard makes quite a considerable amount of money each year by this means. It is so much saved, for of course the ship would have to come back empty otherwise, and it costs less to ballast with freight than with worthless ballast.

THE DONKEY-LINE ON BAHREIN ISLAND

The coral shores of the Persian Gulf prohibit vessels of any size from docking; but the long-legged, white donkeys wade two miles out to sea and bring to land the case oil

The progress in the Orient and in the wild countries of Asia and Africa has been surprising, even to the Standard men, who have become accustomed to see small industries grow into great ones in a year. For eighteen years the Standard has followed in these lands a policy similar to the policy in Europe. As a result, it has to-day its own stations and connections in Japan, northern China, southern China, Indo-China, the Philippines, Dutch East Indies, Straits Settlements, Siam, India, South Africa, Australia, and New Zealand. In all, in these countries, there are 97 importing stations, 987 interior stations, 14 manufacturing plants, 37 coasting vessels, and a large equipment of tank cars, wagons, launches,

A HAWKER ON THE PLAINS OF INDIA

The greatest accomplishment of the Standard in marketing is the selling of bulk oil in the wild regions of India without its ever going into a package of any sort

OFF FOR THE HILLS IN PORTO RICO

In many parts of the West Indies, transportation is still primitive. This picture was taken in Arecibo, in the northwestern part of the island

LOADING A CARAVAN IN EGYPT

A camel carries five cases of ten gallons each, about the equivalent of one barrel in the retail trade in America

barges, etc. A watch is kept not only on the bulk transportation but on even the minute individual supply in the interior of every one of these countries. The oil is carried, in fact, into the lamp of the consumer even on the upper reaches of the Yang-tse-Kiang.

MISSIONARY WORK IN CHINA

Not the least important branch of the foreign trade is the education of the natives. To illustrate the work done and the money spent, the tale of an agent is in point. He studied the situation at first-hand in China and other foreign markets. He made up his mind that if the four or five hundred millions of people in China would only learn how to use kerosene, the Standard Oil need look no further for its market. He studied the crude and infantile efforts of the people to use the oil. He found that they had no scientific lamps, no facilities

FOR THE COUNTRY TRADE IN BURMA

Native country boats picking up case oil at Chittagong, on the Indian Ocean, for the coast and river traffic in upper Burma, where it is eventually to be consumed

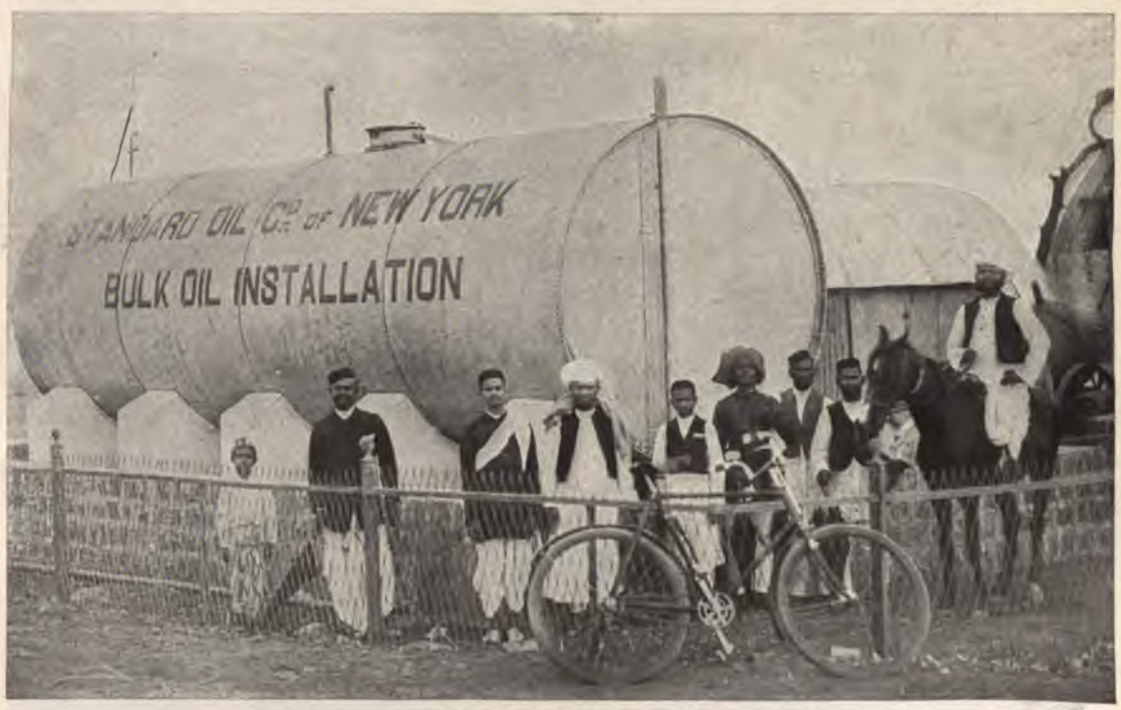
for the proper use of the products in any form. The native tinsmiths made lamps, such as they were — crude, smoking, ill-smelling, without chimneys. They gave a minimum of light and a maximum of discomfort. He decided that what the Chinese people needed was a lamp.

The Standard supplied the lamp. Months of labor were spent devising that lamp. It is a small tin affair, lacquered in colors, broad of base, with a little hook so that it may be hung on the wall. It has a scientific burner, designed to give the maximum of light for the size of the wick. It will burn eleven hours with one filling. Its chimney is made to give the most perfect draft possible. Altogether it is a most complete little lamp.

It costs about eleven cents apiece to make the lamps, with chimney and wick, complete. They are sold in China at seven and one-half cents apiece. Last year more than 750,000 of them were sold, and they are still going. Shipments of them were consigned to agents all over China, with instructions to sell them to users of Standard Oil at the price named. In many cases the agents misunderstood, and sold them as high as forty-two cents each. At that price only the rich would buy. That has been stopped, and to-day the poorest of the poor in northern China can buy his lamps at seven and one-half cents each. The agents carry the chimneys and wicks always in stock, so that they may be replaced at a nominal cost. The people of the far interior, where the winter nights begin at half-past four and last

A BULK STATION AT MEIRUT, INDIA

This station, at the birthplace of the Indian mutiny, is typical of the bulk plants all over India. In the principalities they are placed on the railroad right-of-way, under the protection of the British flag



A TYPICAL STAFF IN INDIA

Mohammedans, high-caste and low-caste Hindoos in the Standard Oil service at Akola. The foreman borrowed the horse, to show that he was superior to the others

A MARKET IN THE SOUDAN

The wildest regions of North Africa are dotted with tin cans that once held American oil

until eight o'clock next morning, are being educated in the use of Standard oil.

I cannot refrain from quoting here an extract from the translation of a placard posted up in a hundred little villages in Central China. This advertisement, simple and naïve as it is, typifies the methods that have to be used in "making the market" for American oil in this and other lands. The Standard agent told me that when the placards are posted crowds gather around, and some scholar of the village reads the writing. And so the "gospel of light" is spread! Here is the translation:

HAPPINESS, LONG LIFE, COMFORT, AND PEACE

If you wish Happiness, Long Life, Comfort, Health and Peace, you must live surrounded by brightness. To live in bright surroundings, you must use a "Mei-Fu" Hong Lamp, (which is made on scientific principles and burns real "Mei-Fu" oil). By using this small lamp and burning the best oil, the light given will be so bright that it will be like day.

A full lamp of oil will burn for 10 hours and there are no other oils that can compare with those of "Mei-Fu" for burning. This lamp may be placed on the table, hung on the wall, or carried in the hand, and all users will be delighted with it. The Standard Oil Company has used scientific principles and skilled people to produce a lamp which will burn up all the oil in the lamp without odor.

Though this lamp is more expensive than the native-made ones (which give no light and a lot of smoke), you must remember that if you use *this* lamp in your home, that all will be able to see clearly and both men and women will be able to work at night without fatigue. This will undoubtedly mean a great advantage. If your children are studying at night then they will be able to do so in comfort, and will take more interest in their studies. There is no man who

OFF FOR THE SAHARA DESERT

From the central markets of North Africa, the Arab caravans carry oil south to the desert cities

does not wish to see his son become a scholar. This lamp assists quietly but surely to this end. Do not think these words are worthless because they are curious. They are full of reason.

Some may say, "If we buy this lamp and the chimney becomes broken, we shall not be able to get a new one." We therefore wish to say that the Standard Oil Company, at every port, will always have supplies of chimneys to be sent to every city and town for sale. The Standard Oil Company has fixed the price at which shops may sell — each lamp including chimney and wick to be sold for not more than seventeen Mexican cents. The wholesale price will be still cheaper.

Do you think the lamp expensive? It really is not so, because in exchange you get the benefit of "Happiness, Prosperity, and Long Life."

On his trip into China, this agent penetrated the Asiatic continent 600 miles in a Standard steamer, to Hankow, the St. Louis of China. Hundreds of miles beyond, in the province of Mamilla, he found the city of Nan-Chung-Fu, a beautiful, stone-built city of a million inhabitants, with broad, curving avenues, and with an astonishing lack of the horde of beggars one expects to meet in China. Fifteen hundred miles farther up the same river, two months' trip from the coast, is the furthest Standard picket, located at Chung King. Beyond it lie the mountains, and Chinese Tibet. And so the outposts of this army lie far beyond the pickets of civilization.

READY FOR THE DESERT IN EGYPT

Oil is carried hundreds of miles across the deserts by pack-camels, loading at the Nile stations along the Cape-to-Cairo Railroad

IN EVERY PART OF THE WORLD

Go where you will, you will find the Standard there before you. You may stand in the streets

ON THE ROAD TO FEZ, MOROCCO

Donkey caravans carry the oil from the seaports to the central cities of North Africa, whence it is scattered across the deserts to markets in the oases and borders of the Soudan

THE TANK WHALEBACK

This type is not so common as the regular tank steamer. The ship shown has a capacity of 20,000 barrels

THE TANK BARGE

For many years the coastwise trade has used tank barges, capable of carrying sail in emergencies. Lately, towing across the Atlantic has begun

THE MODERN TANK STEAMER

This great ship, the *Lucas*, has a capacity of 1,600,000 gallons of oil, or 40,000 barrels of forty gallons each. It is a type of the highest class of oil vessel

LOADING FOR THE ORIENT

Four ships (three for case oil, and one tank steamer for Japan) loading with California oil at a Company dock on the Pacific Coast. On the return trip, they may bring sugar

of Fez and watch the long caravans coming in from the great desert. In the shadows of the pyramids, in the barren cities of the great Sahara, your hostelry will be lighted with oil made on your own shores, pumped, it may be, from the rocks of your own native state.

A VETERAN OF THE TRADE

The tank ship *Bayonne* (the first one built for the Anglo-American Oil Company) lying in the ice in the Delaware River

A MARKET CONFERENCE IN CHINA

Agents and representatives of the Standard Oil Company (mostly natives) in a regular conference about methods of oil distribution in the Chinese Empire

You will find it in the Maori hut in the mountains of New Zealand, and burning at the whaler's table on the shores of Greenland.

Of all this, Standard men are proud. It has been gained in the face of great rivals, and against difficulties barely hinted at in this article. The Standard officials state emphatically that little or no oil is sold abroad at a loss. It has been done, at times and in places, to make a new market or to hold an old one against some temporary attack. It has not been done, nor will it be done, where conditions are permanently against the American industry. If the Standard knows that any rival can permanently undersell it in any market in the world, the rival may have that market. He cannot gain it until every resource has been exhausted to cheapen the cost of the service to that point.

(*The second article in this series will take up the method of administration, the personalities that to-day dominate the affairs of the Standard Oil Company, and the system that is used to gain efficiency in the manifold activities of the industry.*)

THE STANDARD'S STAFF AT YOKOHAMA

Almost universally, the Standard employs native labor, under the general supervision of Americans. In advanced countries, even the most responsible places are filled by natives

THE WATCH-DOGS OF THE TREASURY

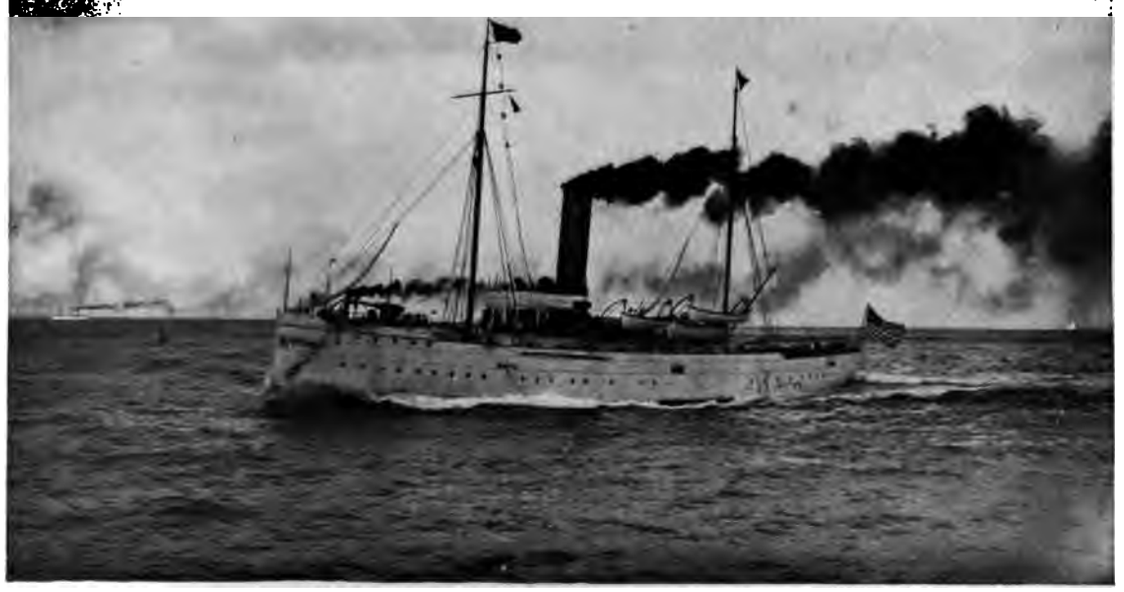
THE VIGILANT SHIPS OF THE REVENUE CUTTER SERVICE, WHICH PREVENT THE SMUGGLING OF MERCHANDISE AND GIVE ASSISTANCE TO VESSELS IN DISTRESS

BY

PAUL EVE STEVENSON

THE assertion made by every revenue officer that of all the divisions of the Federal Government the Revenue Cutter Service is the least known and recognized is probably true. Even the types of the vessels that compose the fleet are generally confused. The traveling public alludes to the tiny steamers that make fast to incoming ocean greyhounds as revenue *cutters*, whereas they are revenue *tugs;* and people think that the white steamship lying at her anchors under the Stapleton hills is a warship. This vessel, though, is the actual revenue cutter — a vessel that is capable of going to sea in any weather and staying there, when ordered out to the assistance of some hapless ship overtaken by disaster. This is the heroic branch of the Revenue Service, and it is of a very different type from the harbor-inspection department, althought it cannot be said that the one is more important than the other.

Scattered along the coasts of the United States, enforcing the revenue laws with untiring vigilance, is a fleet of about forty sea-going revenue cutters, manned by two thousand sailors. But while this vigil against smuggling may be called the chief business of the revenue cutters, it is only one of seventeen duties provided by law, almost every one of which has a distinct connection with our overseas traffic. These duties are: The protection of the customs revenues and of merchant vessels, of



THE REVENUE CUTTER "GRESHAM" ON PATROL DUTY

CAPTAIN WORTH G. ROSS, COMMANDING THE UNITED STATES REVENUE CUTTER SERVICE

THE "THETIS" IN AN ARCTIC ICE-PACK, A DISTRICT WHERE SERVICE CALLS FOR GREAT HEROISM

THE UNITED STATES REVENUE CUTTER "MOHAWK," WHOSE HEADQUARTERS IS THE PORT OF NEW YORK. IT PATROLS A LARGE SECTION OF THE COAST

VOLUNTEERS FROM THE REVENUE CUTTER "BEAR" CARRYING PROVISIONS ACROSS THE ICE TO IMPRISONED ARCTIC WHALERS

An expedition whose hardships and daring form one of the heroic chapters in the annals of the frozen seas

"OFF DUTY"

THE "MACKINAC" IN THE SAULT STE. MARIE CANAL

A LANDING-FORCE FROM A REVENUE CUTTER

the seal fisheries, of wrecked property, and of public timber-preserves on the coast; the enforcement of quarantine, neutrality, and navigation laws; the regulation of anchorages and maintenance of order at great regattas; the assistance of vessels in distress and coöperation with the United States Fish Commission; the suppression of illegal sea traffic of all description, especially in Alaskan waters; the suppression of mutinies and of the coolie trade; the construction, inspection, and drilling of all life-saving stations and crews. The most advanced type of revenue cutter is to be found in such vessels as the *Mohawk, Seminole,* and *Algonquīn.* They are of about 1,000 tons displacement, with an extreme speed of seventeen knots and an economical cruising speed of about twelve, with bunker-space for ten days' steaming at that rate.

The report for the year 1907 shows that during that period 41 drowning persons were saved; 2,967 persons on board of vessels

THE "CHASE," FORMERLY A TRAINING-SHIP OF THE REVENUE CUTTER SERVICE

were assisted, 78 people in distress were taken on board cutters and cared for; and 138 vessels in distress were given assistance. The value of these distressed vessels, which would undoubtedly have finally gone to pieces if they had not been hauled out of the grip of the land by the cutters, was a little more than $9,000,000; and as the appropriation for 1908 for the maintenance of the service was only about $1,800,000, the investment was an exceedingly good one. An estimate of its usefulness may be drawn from the following statement, covering a period of ten years, from June 30, 1896 to June 30, 1906:

Vessels in distress assisted	1,514
Value of vessels assisted, including cargoes	$33,641,665
Persons on board vessels assisted	15,098
Persons cared for on revenue cutters	2,474
Lives actually saved from drowning	559
Vessels boarded and examined	222,044
Vessels reported for violations of law	3,913
Fines incurred by vessels reported	$1,041,053

THE COASTWISE POLICE SERVICE

The above are tabulated facts, easily ascertained; but what the cutter service saved the country by its inspection of suspected vessels can only be imagined. Nearly 15,000 ships were boarded last year and examined for violation of customs regulations, and 319 vessels were seized or reported for infringement of the laws. Each revenue cutter has a limited district. The *Mohawk*, stationed at New York, covers that portion of the coast lying between the capes of the Delaware and the South Shoal Lightship off Nantucket; at any moment, she may appear unexpectedly in any harbor and demand an inspection of any vessel's manifest and papers. An officer is pulled over to the merchantman, schooner, steamer, launch, or what-not, by six seamen, clothed with the power not only of boarding the vessel, but of seizing her, if he suspects smuggling or anything else irregular. In ten minutes' time he can put a crew on board whose authority cannot be questioned, while the guns of the cutter lying but a few yards away furnish a very strong argument in the event of a show of resistance. The revenue officers are of course generally satisfied with an examination of the ship's papers and manifest, and are rowed back to their vessel; still, an average of more than one ship a day in 1906 was seized or reported to the Treasury Department in Washington, under which department the Revenue Cutter Service is conducted.

The service is officered by men who have been educated on board the practice-ship *Chase*, with headquarters at Arundel Cove, near Baltimore. The term of instruction covers three years, and includes the handling of ordnance and the landing of armed parties in mimic warfare. While not a part of the Navy in any sense, the service coöperates with it constantly, under orders from the President; and, at Santiago, it was the revenue tug *Hudson*, now in New York harbor, that pulled the destroyer *Winslow* from under the Spanish batteries after Lieutenant Bagley had been killed. In fact, a better motto than *Semper Paratus* could not have been chosen for the service.

A SERVICE OLDER THAN THE NAVY

Organized by Alexander Hamilton in 1790, the Revenue Cutter Service antedated the Navy by eight years, for it was not until 1798 that the United States Navy was actively established. Undoubtedly Hamilton's idea was solely the protection of the customs laws and he would have been astonished at finding a thousand-ton, seventeen-knot cruiser — for that is what the modern revenue cutter really is — ordered to sea for the purpose of destroying wrecks and other obstructions to navigation. A vessel has lately been built for the express purpose of demolishing these obstacles at sea; but up to within a very short period, the cutters removed the impediments themselves. With our enormous coasting traffic and the comparative shallowness of the sea off the littoral south of Cape Cod, it would be extremely dangerous to navigation to allow even a standing mast of a vessel, sunk in eight or ten fathoms and right in the track of commerce, to remain for any length of time. Immediately upon the location of such an object, the cutter stationed nearest to the submerged wreck is ordered by wireless from Washington to proceed with all haste to the scene and destroy the hulk, or at least to remove the obstructing masts. This is accomplished with gun-cotton mines, exploded by electricity, which have been lowered through the sea until they rest upon the deck of the wreck. If the masts are of iron, a dozen mines and four or five day's work may be necessary to dislodge them.

Floating wrecks are far more easily destroyed than submerged ones. Formerly it was the custom to attack the floating wreck with the vessel's ram; but even timber-laden schooners proved so nearly a match for the steel prow of the cutter when it narrowed down to actually hurling the latter upon the victim that mines are now used entirely.

It is in the waters of the North Pacific that the revenue cutters have most distinguished themselves, particularly in the protection of our seal fisheries of the Prybilof Islands. Lying in Bering Sea, immediately north of the Aleutians, these great rookeries furnish a large part of the supply of the world's finest sealskin; and the policing of this district by the cutters is probably the most important of the duties of the revenue vessels on the Pacific Coast. Japanese illegal sealers make periodical raids upon the Prybilofs; and it is the detection of anticipated raids that devolves upon the officers and men of the cutters, followed by the seizure of the sealing schooners and the arrest and imprisonment of the offenders. These rookery raiders consist of an exceedingly wild and reckless body of men, who shoot only to kill; and it requires patience and courage of the highest order to cope with them successfully. The *Rush* and the *Bear* have figured prominently in these engagements, both of them old boats, and they have written their signatures very plainly on the pages of the North.

HEROISM IN THE FROZEN NORTH

Both of these little steamers have also played important rôles in the rescuing and feeding of imprisoned whalers in the neighborhood of Point Barrow, the northernmost headland of Alaska and well beyond the Arctic Circle. Not only have a great number of lives been saved by the timely arrival of the cutters, but in many instances the whale-ships themselves have been freed from the ice by the well-directed operations of the revenue boats. The most conspicuous achievement in this direction was the rescue of the crews of a dozen whale-ships that had been caught in the ice in the autumn of 1897, between Point Barrow and the mouth of the Mackenzie River. The ice had closed in unexpectedly and it was known that 265 men, the crews of the whaling vessels, had been caught in the jam, with every prospect of starving to death. The President called for volunteers, and from the cutter *Bear* three men were chosen for the relief expedition—Lieutenants Jarvis and Bertholf, and a physician. Leaving the *Bear* at the most northerly point practicable in Bering Strait, picking up a portion of a herd of reindeer imported from Siberia a few years before by the *Rush* and the *Bear*, the three men, driving the herd before them, commenced the most terrible march on record, in the middle of the Arctic darkness. The distance was 1,200 miles; and the fact that they started in December and finished in April, averaging not more than ten miles a day, testifies to the severity of the journey. The mate of the *Navarch*, one of the imprisoned whale-ships, afterward said: "When the three of them were sighted, carrying a fair wind with 'em, our boots, I 'll say, were tough eating; but the walrus-hide thongs were damned good grub." The reindeer furnished food for the 265 Yankee whalers that winter by the Mackenzie, who thus lived to deliver their ships from the ice-pack and to return to San Francisco with thousands of casks of whale oil.

The revenue cutters do business in the ice-fields nearer home than Bering Strait though, for in the winter of 1907 the *Mohawk* opened a channel across Vineyard Sound into Nantucket Harbor, when the New Bedford steamer had been obliged to cease her trips, and a few days later pulled the *Thomas W. Lawson*, the largest fore-and-after in the world, off the Hedge Fence, near Cape Pogue, with 8,000 tons of coal in her. The *Mohawk* also stood by the big German four-masted ship, *Peter Rickmers*, ashore last May near Fire Island, remaining within hailing distance during a heavy easterly gale, ready to render whatever assistance she could. The *Rickmers* had pounded across four or five sand bars, however, and eventually broke up.

While the life aboard the revenue tugs of the various harbors along the coast is not so exciting or varied as that on board the cutters, it is possibly even more important from the revenue point of view than on the larger sea-going boats. Each port on the coast great enough to warrant it has its revenue tug; New York has four or five. These little propellers exist only for the purpose of carrying the deputy-inspectors to quarantine, where they board the incoming steamers, both passenger and freight. In the service there are 350 deputy-inspectors. Transatlantic

voyagers are familiar with them — the curt and quick-mannered men who sit at the ends of the dining tables on the passage up the harbor, and who later on lay bare the secrets of trunks and kit-bags on the piers.

THE ROUTINE OF THE SERVICE

The question of who shall get the jeweled liner and who the sooty tramp — for there must always be an inspector on board — is decided by an inexorable routine of assignment, in running order. The man allotted to a 25-knotter will next week find himself imprisoned in a grimy cargo-boat; for the inspector must remain aboard whatever vessel he is assigned to so long as she is in port, being relieved at night by his "partner." He must note everything that goes on aboard the ship, for it is his business, in staying by her, to prevent any member of the crew from smuggling articles ashore. In the largest steamships, there are seven or eight hundred men on the pay-roll; and while it is not likely that any professional stoker or deck-hand or steward would have much of value to import unlawfully, it is impossible always to pick out the professional smuggler disguised as one of these; it is his business in life to wriggle into the United States with contraband goods.

All these men must be watched closely; as there is generally only one gangway ashore at a time, it is not so difficult an undertaking as might be imagined for the inspector, who lives in the ship. If it is a liner, such an inspector fares well, for his meals are excellent, he has a comfortable room assigned to him, and pleasant company, more or less congenial. But when he is given a squalid old "tramp" to live in for days at a time, his lot is not so pleasant.

But this is the most important phase of all the revenue official's work — the watching of the cargo being discharged from the freighter when they break it out of the hold. Every piece of all the thousands of packages on board must tally with the entry of it on the list of the custom-house broker to whom it has been intrusted. And this is no small labor when twenty-five thousand tons of freight arrive in some of the largest carriers.

The revenue officer has not a pleasant duty, for his very presence reminds every man on board the vessel that he is at least a possible "suspect." But if the tugs that meet the liners and the cutters that patrol the coast were not on duty, the revenue of the United States Government would be quickly reduced. The commanders of these unheralded vessels have some claim to be considered as watch-dogs of the Treasury.

THE AMERICAN FARMER FEEDING THE WORLD

OF THE WORLD'S TRADE HE CONTRIBUTES TWO-FIFTHS OF THE MEAT, ONE THIRD OF THE CORN, ONE-FIFTH OF THE WHEAT, AND TWO-THIRDS OF THE COTTON

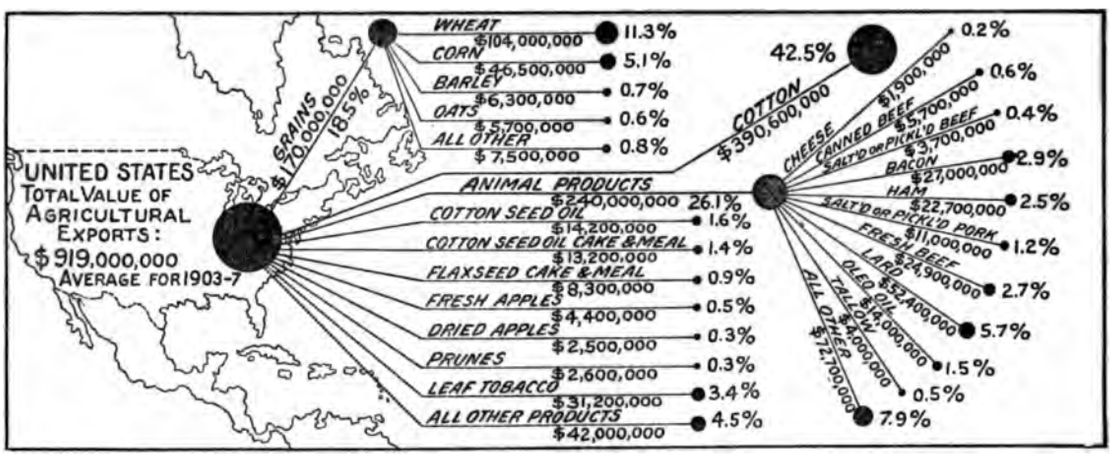
BY

W. M. HAYS

ASSISTANT SECRETARY OF THE DEPARTMENT OF AGRICULTURE. (STATISTICS FURNISHED BY MR. GEORGE K. HOLMES, DIAGRAMS BY MR. ANDRÉ B. BOETTCHER)

AMERICA is in the supremely comfortable position of being the world's great food basket. Our exports of foods and of the raw products of clothing are incomparably larger than those of any other country. To the world's international trade this country contributes one-fifth of the wheat, one-fourth of the hops, one-third of the corn, two-fifths of the meat, nearly one-half of the oil cake and oil-cake meal, almost one-half of the leaf tobacco, two-thirds of the cotton, and four-fifths of the cotton-seed oil.

For the most part, it is a matter of pride that our farms supply the larger part of our domestic exports — 919 million dollars out of 1,578 millions, or 58 per cent. Of the



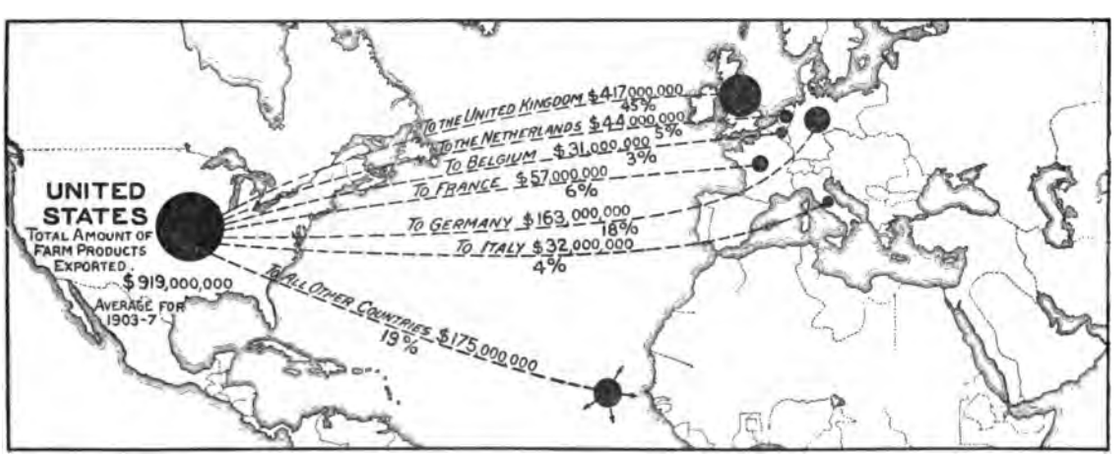
THE AMERICAN FARMERS' AVERAGE YEARLY CONTRIBUTION TO FOREIGN COUNTRIES

surplus of domestic exports over net imports, 401 millions come from agriculture and only 45 millions from other merchandise, a ratio of 9 to 1. (Most of the figures used in this article are based on averages for the years 1903 to 1907 inclusive, as taken from official reports.) The average annual farm value of the products of American farms for these five years is 6,537 million dollars; the value of our domestic agricultural exports, 919 millions; foreign agricultural exports, 12 millions; and the value of our agricultural imports is 530 millions, leaving an excess of exports over imports of 401 million dollars.

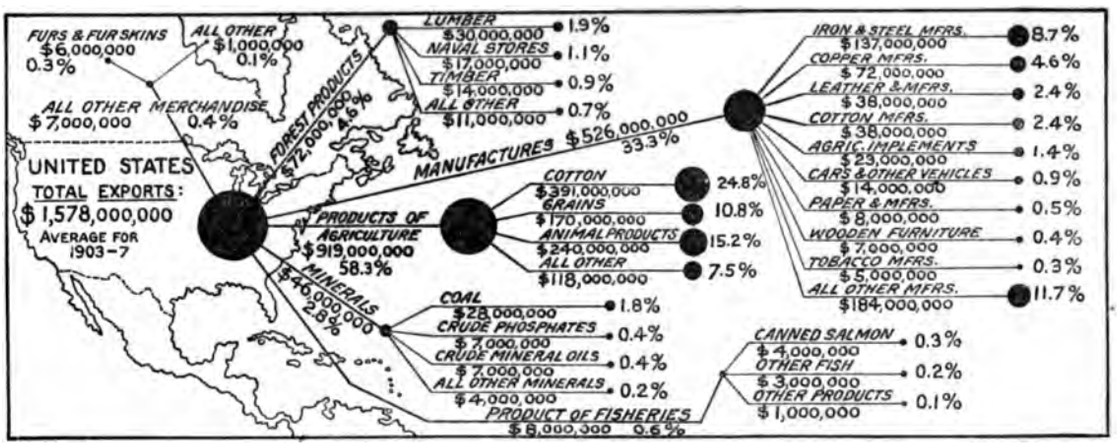
Previous to 1808, the excess of domestic agricultural exports over the net agricultural imports ranged from about 200 to 300 million dollars yearly for nearly a score of years. Our agricultural exports amount to nearly 64 per cent., of which cotton forms 25 per cent., animal products 15 per cent., grains 11 per cent., forest products 5 per cent., furs and fish products 1 per cent., and all other products 7 per cent. The South with its export contribution of at least 450 million dollars, gives half of the whole of our contribution to the food and factory supplies of the great industrial countries across the Atlantic.

Of our other than agricultural exports, amounting in all to nearly 37 per cent., the products of the mine furnish 3 per cent., manufactured articles 33 per cent., and all other products 1 per cent. of the grand total. The actual amounts are more easily appreciated when read in the diagram by a comparison of the circles, whose areas represent the respective values.

Of the $919,000,000 worth of agricultural products annually exported, 391 millions is cotton, 14 millions cotton-seed oil, and 13



THE FOREIGN COUNTRIES WHICH OUR FARMERS HELP TO FEED AND CLOTHE

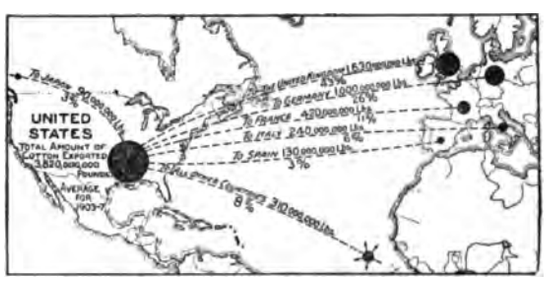


THE FARMER FURNISHES MORE THAN HALF OF OUR TOTAL EXPORTS

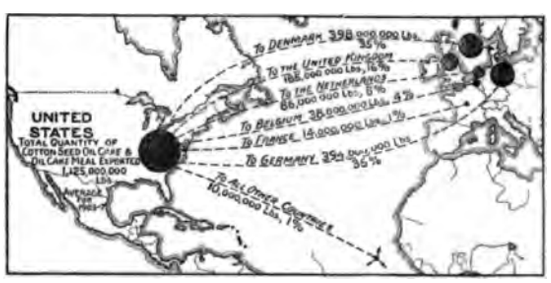
millions cotton-seed oil-cake, and meal. Thus this one crop brings us back 418 million dollars in our trade; and, besides, it is the basis of our export of 38 millions of cotton goods. Our other large agricultural exports are: wheat, worth 104 million dollars; lard, 52 millions; corn, 47 millions; bacon, 27 millions; fresh beef, 25 millions; and ham, 23 millions. The percentages here are of special interest, as shown in the illustrations, especially that at the top of page 10598.

The great bulk of our farm products goes to west European countries which compete with us in manufacture. England is our principal customer, while Germany, France, Holland, and Belgium take rank in the order named. Twenty per cent. of the total exports shown in the figure by the barbed dot in the Atlantic Ocean are scattered widely to various countries. More than half is used as the raw product in manufactures; and, speaking broadly, the remainder is used for food for the manufacturing countries. Putting it another way, we send to Western Europe our cotton and other products used in manufacture, amounting to half a billion dollars annually, and with them we send bread and meat for the factory hands, and thus furnish them with materials for work and with foodstuffs.

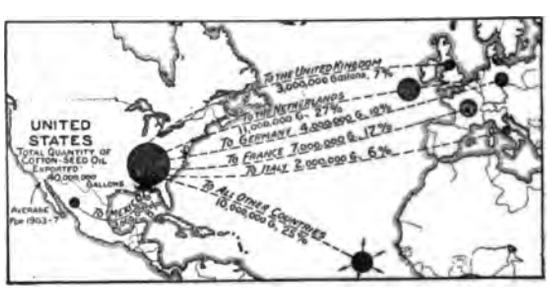
Cotton goes principally to the United



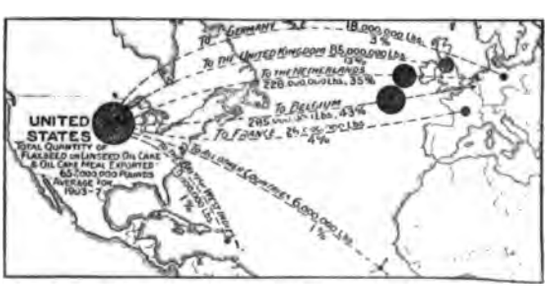
OUR YEARLY SHIPMENTS OF COTTON



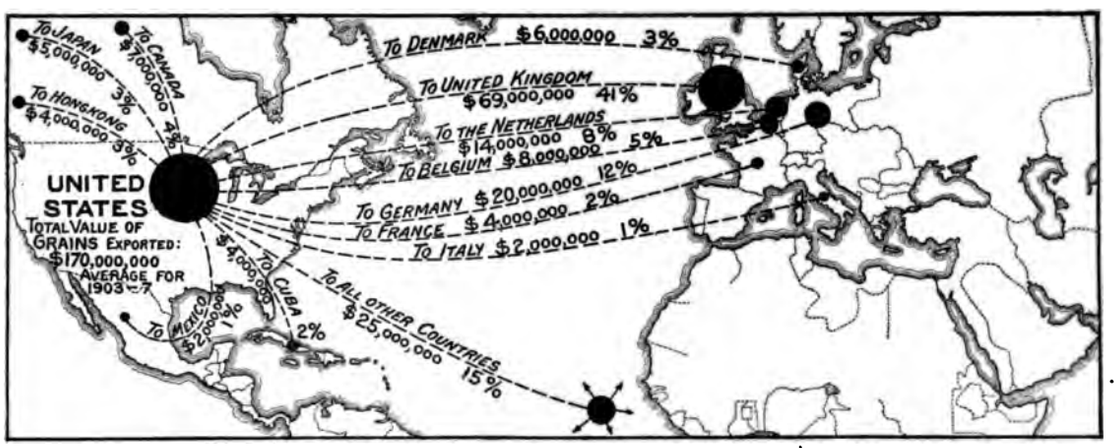
OUR YEARLY SHIPMENTS OF OIL-CAKE AND MEAL



OUR YEARLY SHIPMENTS OF COTTON-SEED OIL



OUR YEARLY SHIPMENTS OF FLAXSEED, ETC.



THE DESTINATION OF OUR SURPLUS GRAIN CROP

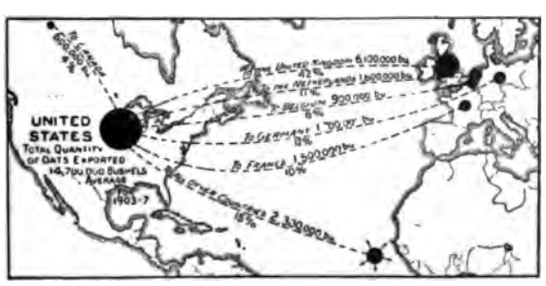
Kingdom, Germany, and France, with lesser quantities to Italy and Spain. In regard to no other product are we so negligent of our manufacturing opportunities, but the tide is now changing and the South is reviving its old manufacturing spirit.

Most of the grains go to the United Kingdom, Germany, the Netherlands, and Belgium; and our animal products exported are taken principally by these same four countries. The reader will see at a glance that the bulk of our exports of wheat, part of which is in the form of wheat flour, goes to the United Kingdom, some of which is re-exported to other countries. Of our average crop of 658 million bushels in 1902–6, we sent abroad 122 million bushels, or nearly one-fifth of our entire crop of wheat, to supply the staff of life to our European cousins. Our coarse grains — corn, barley, and oats — go to the United Kingdom, Germany, the Netherlands, Denmark, Belgium, France, Canada, and Mexico.

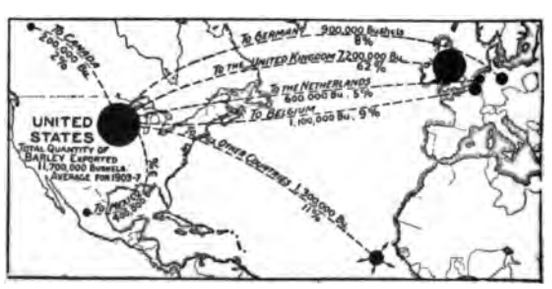
Incidentally, it is of interest to note the fact that our American brewing and distilling interests consumed in the fiscal year 1907 barley worth on the farm 30 million dollars, corn worth 15 millions, and rye worth 4 millions, or a total of 49 millions, more than one-half of the foreign demand, which amounts

OUR YEARLY SHIPMENTS OF CORN

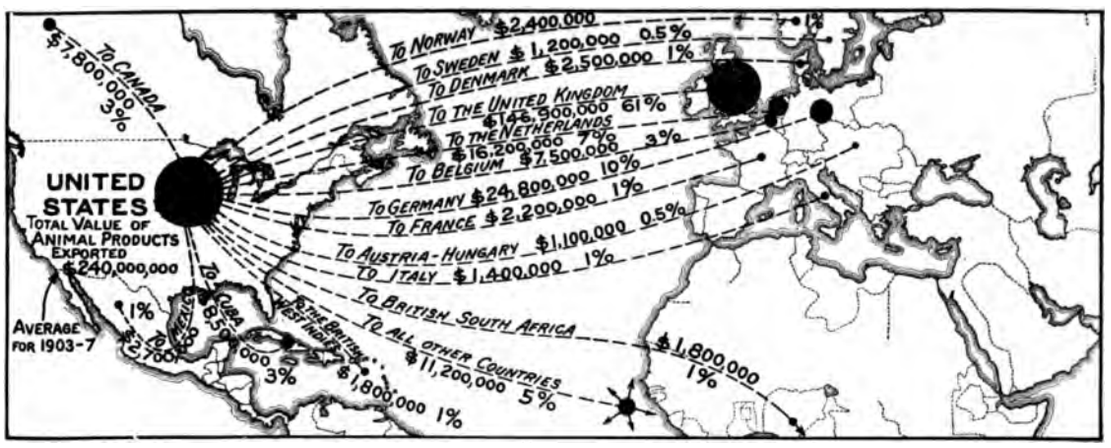
OUR YEARLY SHIPMENTS OF WHEAT



OUR YEARLY SHIPMENTS OF OATS



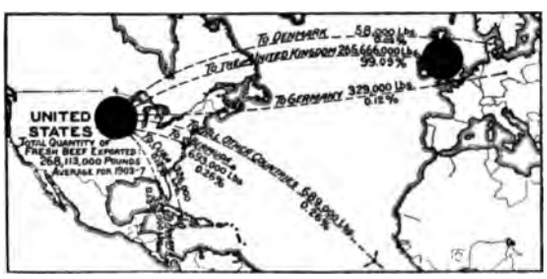
OUR YEARLY SHIPMENTS OF BARLEY



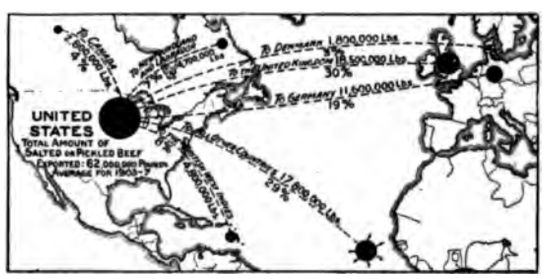
THE DESTINATION OF OUR SURPLUS OF ANIMAL PRODUCTS

to 93 millions. Those nations most active in the commerce of the world from which statistics of crop production are available produce about 3,500,000,000 bushels each of wheat, corn, and oats, and nearly 1,300,000,000 bushels of barley. Using prices at our export points, these products are valued as follows: Wheat, $2,800,000,000; corn $1,900,000,000; oats $1,300,000,000, and barley $700,000,000—a total of $6,700,000,000.

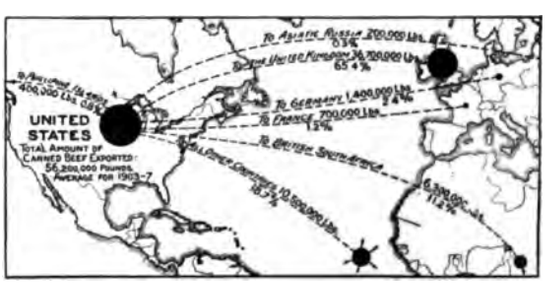
Our live-stock exports are very widely distributed, some going across the Pacific Ocean to Asiatic Russia, some to British South Africa, and some to the countries nearest us on the south. Competition from the Argentine, South African, Australian, and New Zealand surplus confines most of our meat shipments to the North Atlantic steamship lines leading to northern Europe. It is of interest to note that Cuba takes 8½ million dollars' worth of our animal products, mostly in the form of bacon, hams, salted or pickled pork, fresh beef, and lard, that it may the more exclusively devote its energy to the production of sugar, tobacco, and other crops suited to its climate and soil. No doubt Cuba is making a mistake in not raising more of the live-stock products needed at home.



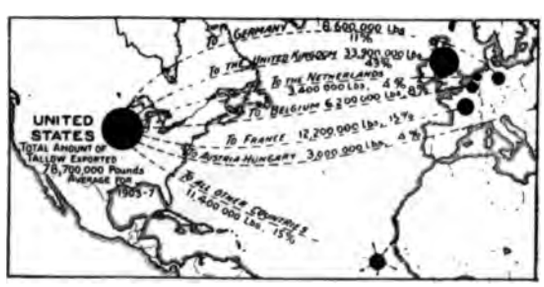
FRESH BEEF



SALTED OR PICKLED BEEF

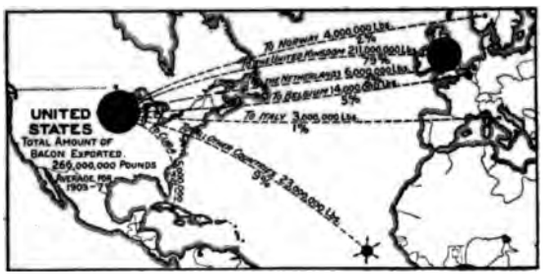


CANNED BEEF

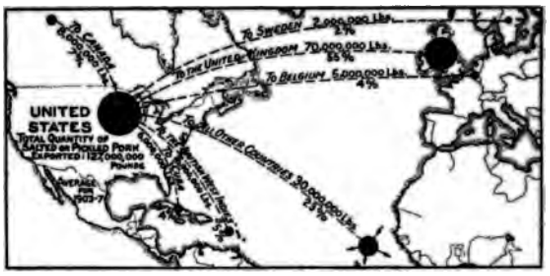


TALLOW

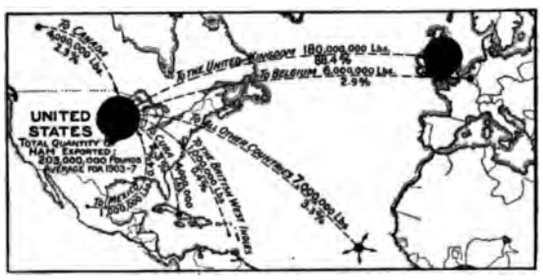
AMERICAN BEEF IN THE WORLD'S COMMISSARY



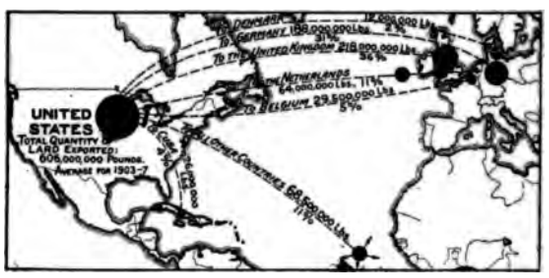
BACON



SALTED OR PICKLED PORK



HAM

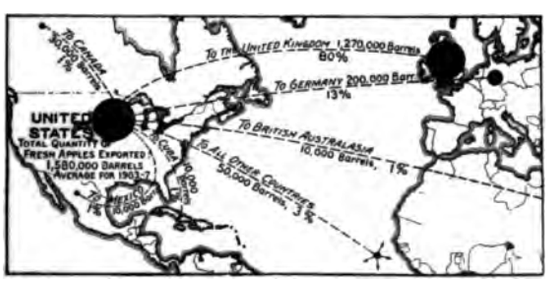


LARD

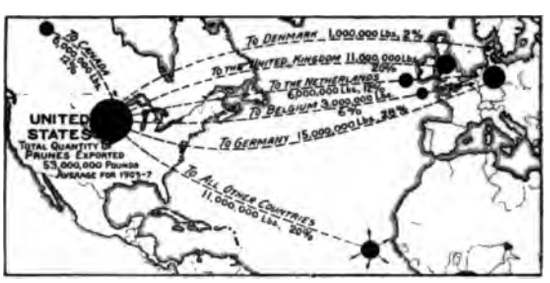
THE AMERICAN HOG, AS HE IS EXPORTED

It is also of interest to note that Norway uses a good deal of our animal products, mainly in the form of bacon, salted or pickled pork, and oleo oil.

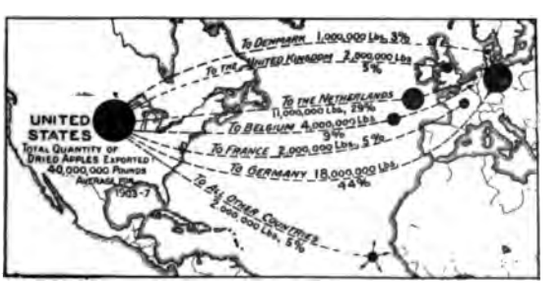
British South Africa has been next to the United Kingdom in the use of our exports of canned beef during the last five years, while moderate amounts were taken by Germany and France, and some by the British possessions on this side of the Atlantic. Under the meat-inspection law there is no longer excitement concerning "embalmed beef," and the reports for the fiscal year ending June 30, 1908 will doubtless show that the reduction



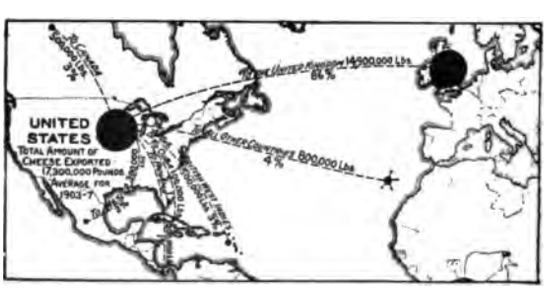
FRESH APPLES



PRUNES



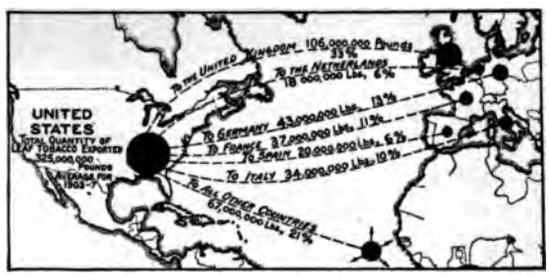
DRIED APPLES



CHEESE

THE CONTRIBUTIONS FROM OUR ORCHARDS AND DAIRIES

OUR YEARLY SHIPMENTS OF OLEO OIL



OUR YEARLY SHIPMENTS OF LEAF TOBACCO

in the export of this commodity has been in good part recovered. While the United Kingdom and Germany take nearly half of our salted or pickled beef, this product is widely distributed to many countries. Newfoundland and Labrador, the British West Indies, Canada, and Denmark consume 24 per cent., and 28 per cent. is distributed to numerous other countries.

In explanation of the large exportation of oleo oil to Germany, the United States Vice-Consul at Reichenberg says: "Very little artificial butter, as such, is imported into this district; but the oil of oleomargarine is still brought here from the United States in large quantities and forms the chief base for the manufacture of butter substitutes." This illustrates the general fact that the best of the fats from our abattoirs somewhere find their way to butter the bread of the nations and compete with the real butter from cows' milk.

We sell, mainly in the United Kingdom and Germany, nearly four and a half million dollars' worth of apples annually, or 1,580,000 barrels worth $2.79 per barrel. This means about $2 per barrel for the apples in Pennsylvania and New York, after paying freight and cooperage, or $1.90 in Indiana and Michigan, and $1.80 in Iowa and Missouri. The fact that we are successfully securing an apple market in Mexico, Cuba, Canada, and even in British Australia, strongly suggests that we have open to us large markets for this delicious, long-keeping, and easily transported fruit native only to the cooler temperate zones. We need more teachers of apple orcharding, more breeders of choice long-shipping varieties, and a better shipping service over the seas to the peoples of the earth, who should flavor their food more with fruits and less with beverages. We ship to Germany and other countries 40,000,000 pounds of dried apples, which at 6.27 cents per pound bring back $2,500,000. We may expect to see the export of this product rapidly increased. It is of interest to note that the 150 pounds making up the three bushels of a barrel of apples produce on an average 20 pounds of dried fruit worth $1.25.

Uncle Sam is in a degree a wasteful farmer. The grains and oil-cake he exports carry with them nitrogen, phosphoric acid, and potash, worth, at current prices for these fertilizer ingredients, tens of millions of dollars. Two-thirds of these chemical substances are carried abroad in oil-cake, corn, and other coarse grains which bring us not many more millions than the market value of the fertilizers they contain, and are mainly used in the production abroad of dairy, meat, and beverage products to be sold in part in competition with America, and to make richer manure with which to increase the yields of forage, grain, and garden crops in foreign countries. Of the exportation of the coarse grains we cannot feel proud. If we fed these products we would gain in three ways. We would secure more money for the larger values of exports of animal products thus produced. We would return to our own soils the tens of millions of dollars worth of fertilizer ingredients and in addition several million tons of humus-making substances other than nitrogen, phosphoric acid, and potash. We would induce the change of the crops of more of our farm areas to grasses and annual forage crops, which both rest the soil and add to it organic matter which adds greatly to the profits from crops.

Many additional pages would be required to tell even most of the large facts about the exportation of agricultural products from the United States, but it has been deemed more practical to present them in the form of diagrammatic illustrations. From even a casual examination of these it will readily be seen that the American farmer is a very important factor in the life of nearly all the world, civilized and semi-barbaric.

BIG FACTS ABOUT LATIN AMERICA

THREE-FOURTHS OF THE AREA BETWEEN CANADA AND THE STRAITS OF MAGELLAN — A TRADE OF SIX HUNDRED MILLION DOLLARS WITH THE UNITED STATES

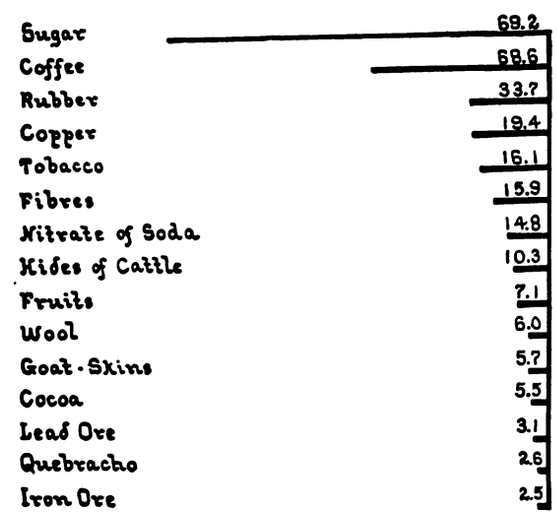
BY

JOHN BARRETT

DIRECTOR OF THE BUREAU OF INTERNATIONAL AMERICAN REPUBLICS

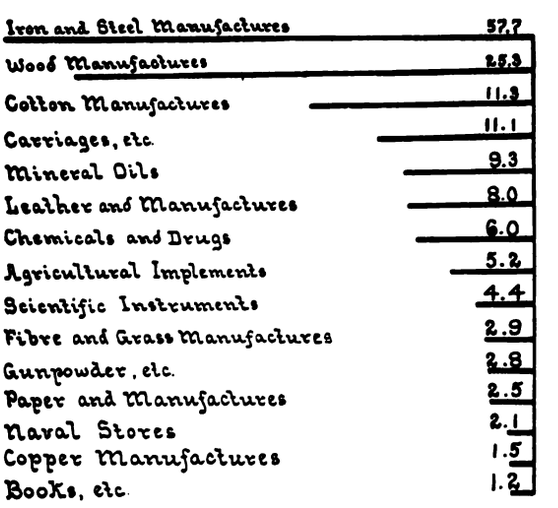
PAN-AMERICA, or the twenty-one republics (including the United States) extending from the Canadian line south to the Straits of Magellan, covers approximately 12,000,000 square miles, of which Latin America occupies 9,000,000 or three-fourths. This same Pan-American area supports a total population of nearly 160 millions of which about 73 millions reside in our sister republics — and they are 73 millions who have an extraordinary buying and selling capacity. The grand total of Pan-American trade for 1907 was, in round numbers, $5,500,000,000 — an enormous sum of which, of course, the United States had the greater share. Careful analysis, however, discloses the remarkable fact — gratifying to all advocates of the commercial importance of our neighbors — that our twenty sister republics of America conducted much more than one-third of this total trade, or an amount valued at $2,100,000,000.

Some remarkable comparisons may impress the memory with the vast area of the southern continent. Into Brazil could be placed all of the connected area of the United States — that is, the United States proper without Alaska and island dependencies — and room would still remain for another California and South Carolina. Into Bolivia could be placed the thirteen original states, plus Maine, Florida, Alabama, Louisiana, Mississippi, and then Illinois four times over. Peru would completely cover the entire Atlantic seaboard states from Maine to Florida, and then spread out proudly over three Wyomings. The Argentine Republic, down in the southern temperate zone, could swallow the combined



VALUES OF FIFTEEN LEADING PRODUCTS IMPORTED INTO THE UNITED STATES FROM LATIN-AMERICAN COUNTRIES

The figures represent millions of dollars



VALUES OF FIFTEEN MANUFACTURED PRODUCTS EXPORTED FROM THE UNITED STATES TO LATIN-AMERICAN COUNTRIES

The figures represent millions of dollars

areas of the states east of the Mississippi and then require, to satiate its extensive appetite, such goodly sized commonwealths as Minnesota, Iowa, and Missouri. Mexico, our nearest Latin neighbor, would blot off from the map everything east of the Mississippi and north of the Gulf tier of states, while Columbia could occupy a notable portion of our Central West by covering Michigan, Minnesota, Iowa, Missouri, Nebraska, Kansas, and Oklahoma. Little Uruguay is not so little that it would not hold New York and West Virginia, while Central America (including Panama) would equal Michigan and Montana.

A TRADE OF 600 MILLIONS

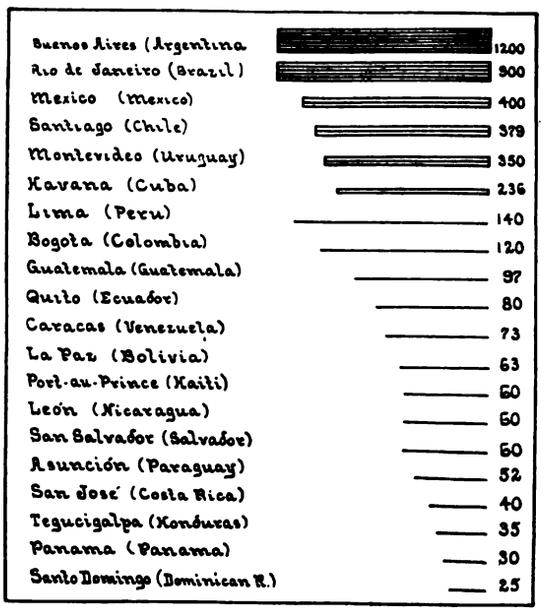
Now what can these areas do in actual trade — for commerce is the life blood of nations? The commerce of the United States alone with the twenty Latin-American states grew from $250,000,000 in 1897 to $600,000,000 in 1907. Otherwise expressed: in the short period of ten years, these sister republics more than doubled what they bought from and sold to us. No other large section of the world can make any such showing.

The foreign commerce of Argentina last year exceeded that of Japan by nearly $150,000,000 and that of China by $40,000,000. Argentina's per capita of foreign trade was $102; that of Japan about $9; that of China about $1.25. No better evidence could be brought forward of the trading capacity of the Latin Americans than that 6 millions of people in Argentina carried on a foreign commerce in 1907 valued at $582,000,000. Brazil makes an excellent showing with an annual total of nearly $500,000,000; Mexico with $240,000,000; Chile with $210,000,000; Cuba with $209,000,000; Uruguay with $70,000,000, and Peru with $54,000,000 (1906). The largest items of the trade between the United States and these republics are shown in the accompanying diagrams.

Latin America may be divided into three sections: Mexico and Central America; the Caribbean countries of Cuba, Dominican Republic, and Haiti; and South America proper. It is not correct to describe this vast extent of territory as Spanish America because Brazil, occupying one-third of its total area, is Portuguese America, and there the Portuguese language is the common tongue. In Haiti, only French is spoken. Business men and travelers should remember these differences of language in sending agents or in visiting these countries. The exact figures of the total foreign trade of Latin America in 1907, by the latest computation, are $2,077,458,000, of which $1,005,503,000 are imports and $1,071,955,000 are exports—a balance in favor of Latin America of more than $66,000,000. Considering the three subdivisions just given, this foreign commerce is segregated as follows:

South America: $1,534,958,000 (imports $733,570,000, exports $801,388,000).

Mexico and Central America: $312,804,000 (imports $158,445,000, exports $154,359,000).



THE COMMERCIAL CAPITALS OF LATIN AMERICA

The figures represent population, in thousands

Cuba, Dominican Republic and Haiti: $229,696,000 (imports $113,488,000, exports $116,208,000).

Of the total of all of these, the share of the United States is approximately $600,000,000, of which we import $320,000,000 and export $280,000,000 — a balance against us in favor of Latin America of $40,000,000. Now is the time not only to overcome that balance but also to buy more, until our trade with our prosperous sister republics shall reach a billion dollars per annum — a figure which should be attained in the next ten years.

It may be desirable to consider some general conditions that are necessary to develop closer business relations between the United

States and Latin America. First among those to be recommended is the actual visiting of Latin-American cities and trade centres, either by the managing directors or by capable representatives of the leading business institutions. Intimate acquaintance with the peculiar features of life, civilization, resources, and progress of our sister countries is most essential to advance trade with them. The American manufacturer must find out what this field wants and accommodate himself to it. Either he or his agent should, moreover, have such a knowledge of Spanish or Portuguese, or both, that he can talk with the people themselves in their own tongue.

Another important requisite to the present situation is better steamship facilities in the form of first-class mail, passenger, and express vessels. It cannot be denied that there is a good supply of freight vessels running between North and South America, and that there are some very fair passenger boats covering the route between New York, Rio Janeiro, and Buenos Ayres, but the United States is far from possessing such lines as take care of passengers and mails between Europe and the principal ports of Latin America. We must have steamships of this character, just as we have fast express and mail trains on land to carry business men and letters of commerce. Now the correspondence of South American merchants takes a third more time in obtaining answers from the United States than it does from Europe, while 90 per cent. of the business men of Brazil, Uruguay, Argentina, Chile, etc., go to Europe to make purchases instead of to the United States, because of the quality of the vessels which carry them. This is not a question of subsidy; it is purely that of paying a good wage for work done, namely, the carrying of mails as commerce requires.

Still another needed change is the establishment of banks controlled by capital of the United States in the principal trade centres of Latin America. These are such invaluable adjuncts to commercial exploitation that the United States cannot expect to compete successfully with England, Germany, France, Spain, Italy, and other countries, which now have these facilities in contrast to none possessed by the United States except in one or two capitals of the northern section of Latin America.

To fulfill the desire among manufacturers and others to know more about Latin America, I wish to offer them the facilities of the International Bureau of the American Republics at Washington to obtain further data. It is accomplishing great practical results in developing closer relations of commerce and comity between the United States and its sister republics.

THE TECHNIQUE OF FOREIGN TRADE

HOW EXPORT ORDERS ARE SECURED, PACKED, SHIPPED, AND FINANCED—A MANUAL FOR MANUFACTURERS

BY

EDWARD NEVILLE VOSE

EDITOR OF "DUN'S INTERNATIONAL REVIEW"

HOW best to reach the foreign buyer is the first problem that confronts the manufacturer seeking export business. The successful methods may be counted on the fingers of one hand. Plans that are not modifications or combinations of the following should be thoroughly investigated before any money is spent on them.

(1) Traveling Salesmen. This is the most effective of all selling methods, but good export salesmen are rare in America and the supply is being trained very slowly. Germany and England send out fully 1,000 and France, Austria, and even little Belgium at least 100 to every ten now abroad in behalf of the United States. The drawbacks to employing export salesmen are that capable men are very costly, they can cover only a limited territory, and results are slow.

(2) Foreign Branch Offices. Manufacturers whose line warrants the initial expenditure have found it profitable to open branch establishments

in the business centres of their principal foreign markets. These are usually in charge of Americans, and the number of such establishments in London, Paris, Berlin, and other European capitals is rapidly increasing.

(3) Foreign Agencies. The bulk of the direct export business of the average manufacturer is secured and handled through foreign firms to which an exclusive agency for a city, district, or country has been granted. Being natives of the country in which they operate, these agencies can often represent the manufacturer more effectively than even his own salesmen or branch-office managers could do. They understand the customs of the country as no foreigner ever can, are a part of its social life, and on terms of personal intimacy with their customers. Abroad, these factors count for more than they do here. Many of the exporters of Hamburg and other German trade centres have for many years been sending out promising young men to become apprentices in the stores of their foreign clients. These are expected to make the country to which they are sent their permanent home, to marry there, and eventually to establish trading houses of their own, which will naturally purchase largely in the Fatherland. Agencies with German proprietors and native employees, whose origin is due to this far-sighted policy, are now to be met with in nearly every trade centre of the world; and the extent to which they have contributed to the enormous expansion of Germany's export trade in recent years can hardly be calculated.

(4) Advertising. This is practically the only method for reaching the foreign buyer direct at relatively small expense, and it has been the means by which nearly every American manufacturer now exporting on a large scale made his first beginning. A few houses have occasionally advertised in foreign class-publications with benefit, but the great majority employ one or all of the export journals published in the United States.

(5) Circularizing and Direct Correspondence. Excellent results have been obtained by the intelligent application of this method in cases where reliable lists of actual buyers have been available. Most of the so-called "export lists" prove not to to be worth the postage expended on them. The lists that prove to be really worth while are those built up slowly and carefully by each manufacturer in his own export department.

These methods have for their object the securing of orders from foreign buyers direct. As a matter of fact, very considerably more than half of the export trade of the United States comes through the export commission houses and export merchants. In so far as these are agents of foreign buyers, they have little or no option as to what particular mark or make they shall buy. These points are settled by their foreign clients, who specify the exact goods which they desire. To a steadily increasing extent, however, the great export trading houses are carrying on their business simply as merchants, buying and selling on their own account and not at the dictation of foreign principals.

PLAIN FACTS IN THE BUYER'S LANGUAGE

The foundation-stone of foreign trade is the export catalogue and price-list. Most manufacturers find a complete Spanish catalogue essential to their success abroad, and many issue condensed booklets in other languages. Accuracy of translation is of prime importance, and too much care can not be taken in the selection of a translator. A badly translated catalogue is likely to result in a total loss, not only of the cost of printing and postage but of the money expended in securing the inquiry in reply to which the catalogue is sent out. The manufacturer should also be slow to discharge a translator when once engaged. Criticism of translations is the very common trick of certain unscrupulous translators in soliciting employment.

The export catalogue need not be a translation of the entire domestic catalogue. Only those lines that can be successfully pushed for export should be included: If the line is machinery, all that the foreign buyer desires to know is what the machine can do. Technical descriptions of gears, cams, bushings, etc., are a waste of space and ink, and may even prevent a trial order by creating the impression that the machine is too complicated. The export catalogue should also invariably contain the exact weight and dimensions of every article as packed for export, cable address and cable code, illustrated and numbered list of parts, and any other special information useful to the foreign buyer.

The price-list should be translated into the language of the buyer to which it is sent, whenever this is possible, and quotations should be in the money-standard most familiar to him. The American system of discounts should be entirely abandoned when it comes to the export price-list. In the domestic trade these are sometimes masterpieces of intricacy, often comprising half-a-dozen separate discounts, of which the largest buyers receive all,

others five, four, or three, and so on. To make matters worse, discounts are frequently quoted in fractions — one sheet giving 62½, 16⅔, 12½, 10, 10, 5, 5, and 2½ off the list-price. These discounts differ as between the different trades, as between different manufacturers in the same trade, and as between different articles in each manufacturer's catalogue; while new discount-sheets cancelling the old prices entirely are issued at frequent intervals. All this is hopelessly confusing to the foreign buyer and may prevent his sending a direct order. The English and German exporting houses rarely have more than one or two discounts. American exporting commission firms attend to this detail for their foreign clients, usually securing all discounts, including that for cash — in itself an important reason why so large a part of the export trade reaches the manufacturer through them.

The prices quoted should also be f. o. b. seaport, rather than the point where the factory is located. The buyer in South Africa who is given an f. o. b. price at a factory town in Indiana can only guess at the probable cost of shipping the goods from that point to the seaboard, and cannot know exactly what they are going to cost him at his door.

On the intelligence with which the first letter of inquiry from the foreign buyer is answered depends in a large measure the manufacturer's success in securing his order. A surprisingly large number of orders are lost through carelessness at this point. Only by having a well-organized export department in charge of an experienced manager can the manufacturer be certain that all of the minute peculiarities of foreign correspondence have been attended to. The reply to a foreign inquiry should cover *every* point regarding which a prospective buyer requests information. Laudatory descriptions are a waste of effort. The inquirer must already be convinced that the article has merit or he would not have written. The points about which he now desires information relate to prices, terms of payment, manner of packing, size, gross and net weight, and similar details. All of these points should be covered in the reply, together with c. i. f. price (cost, insurance, and freight) at the buyer's town or seaport, and an explicit statement as to terms of payment so that the return mail can bring the order. Another letter of inquiry would mean from three weeks to three months of unnecessary delay.

PACKING AS A FINE ART

If the order, when it actually arrives, comes through a New York commission house or buyer's agent, the manufacturer has only to comply *exactly* with instructions as to packing, marking, and shipping. If the order comes direct from abroad, the export department should be made responsible for every detail connected with packing and shipping it. This is absolutely essential, or a humiliating blunder somewhere along the line is more than probable. The manager of the export department knows the route over which a given shipment must go to reach its destination and the transportation difficulties it will have to surmount. The manner of packing should be left to him and not to the shipping-room. For example, if it must go part way by mule-back over mountain trails, he knows that packages must not exceed 125 pounds in weight, so that one may be hung on each side; if the route goes through damp, tropical countries, special moisture-proof wrapping is necessary; and if the wrapping is penetrated by nails, the rust caused by dampness may make it fall off. Strength is essential in export packing, for cases are subjected to rough handling, especially if transferred from steamship to lighter in an open roadstead. At the same time, superfluous weight is severely penalized, both in the freight-rate and in the customs-duty levied by many countries. Ocean freight-rates are calculated on a basis of gross weight or cubic measurement, at ship's option, in the ratio of fifty-six pounds to one cubic foot, the measurement ton being therefore forty cubic feet. The rate is assessed in whichever way the result is larger; an article which weighs 2,240 pounds (a long ton) but measures eighty cubic feet (two measurement tons) being charged for as two tons. An extra charge is made on packages of excessive weight or size, and it is also important to bear in mind that there is a fixed minimum charge which is much higher than small packages would have to pay by either weight or measurement. Many foreign customs tariffs are based on gross weight, another point that the export department must bear in mind. Naturally, every article that is capable of being put together at point of destination should be shipped "knocked down," each piece being plainly numbered

to correspond to setting-up instructions. When possible, the cases for machinery and similar articles should be so planned that the customs examination can be made without completely removing the covering or weakening it for further transport. In shipping to certain countries, great care must be taken not to pack in one case articles bearing widely different rates of duty, else the entire package will invariably be assessed at the highest rate borne by any of its contents. There are also fines in certain countries for packing in disregard of customs regulations. When packed, the export consignment is usually marked in such a manner as to be readily identified, but not with the full name of the consignee. Besides identification marks and numbers, the gross and net weight and cubic volume of the package are given, and the port of discharge is indicated in large letters.

SHIPPING REQUIREMENTS ARE INEXORABLE

The details with respect to the preparation of shipping documents vary considerably for different countries, and this work should also be done only by the export department. Several copies of the bill of lading are ordinarily issued, two, three, or four being retained by the steamship company. This document contains only the number and class of contents, the distinguishing marks and numbers, and the gross weight in pounds or kilogrammes. It is also necessary to secure a custom-house clearance, which is turned over to the steamship company with the bills of lading. The consular invoice is a much more elaborate document and its preparation necessitates extreme care lest some error be made that will result in a fine being imposed upon the buyer. Some countries accept invoices made out on the shipper's stationery, while others provide their own forms. The invoice to Cuba, for example, must contain the names of shipper and consignee and of the vessel, marks and numbers and description of merchandise, gross and net weights, price of each article, and value of total consignment. The description must specify with exactness the materials of which each article is composed and must also contain a declaration, signed by one having power of attorney for the shipper, that the article is a product of American soil or industry. For Mexico the invoice is even more detailed and the customs regulations are exceedingly drastic in punishing errors, even though clearly unintentional. While the manufacturer may airily dismiss complaints as to carelessness in making out consular invoices on the ground that it is "merely a clerical error," the result is often a serious matter to the foreign importer; after one or two heavy losses by fines, it is not surprising that he sends his orders elsewhere. Not only must the consular invoice be accurate and exact, but it must show no discrepancies with the bill of lading. Customs officials, especially in Latin-American countries, are very zealous in detecting errors and imposing fines which in some instances greatly exceed any possible profit that the foreign buyer can make out of the transactions. Three or four copies of the consular invoice are usually necessary, two or three of which are retained by the consuls, whose fees vary considerably for different countries. It is important that every consignment for export be covered by marine insurance, the policy for which must be carefully scrutinized for special clauses which may affect the company's liability in certain contingencies.

HOW EXPORT ORDERS ARE FINANCED

It is frequently stated that all export business is cash business, inasmuch as the manufacturer can usually get his money before the goods leave the country. This is a mistake. Sales made to export commission houses and export merchants are usually for cash, and in these cases the manufacturer has no further care or responsibility. An authorized draft made against money which the foreign buyer actually has on deposit in this country is also a cash transaction. The ordinary draft against shipping documents, however, is in reality a credit transaction, notwithstanding the fact that the manufacturer obtains actual possession of his money at once. This is a point that a great many manufacturers do not seem clearly to understand, and it may therefore be worth while to trace the process of collecting this form of payment.

The manufacturer prepares a draft on his foreign customer for the amount of his order. To this he attaches the bill of lading, consular invoice, insurance certificate, and occasionally other documents. His bank examines these documents carefully and, if everything is satisfactory, discounts the draft at once. The draft is made out in duplicate and to the first-of-exchange the bank attaches the documents and sends it to its correspondent in the buyer's town or district for collection. The second-

of-exchange follows on another boat. The correspondent bank notifies the buyer of the arrival of the draft and its terms, and requires him to accept it before turning over to him the bill of lading, without which he cannot obtain possession of the goods. Now, if the buyer fails to meet the draft, the manufacturer must decide whether the goods shall be sold at the foreign port for whatever they will bring, or whether they shall be shipped back to him. The loss, if there is any, or the cost of shipment and insurance both ways, if they are returned, he must pay. If the goods are a total loss, the bank will call upon the shipper to repay the sum advanced against the draft and shipping documents, his endorsement of the draft making him responsible. In other words, the transaction is a loan, secured by collateral in the form of merchandise represented by the bill of lading; it is by no means a cash transaction.

Ordinarily, in export trade, drafts are made payable in sixty or ninety days, in order to give the foreign buyer ample time to get his goods through the custom-house before having to pay for them. Some manufacturers, however, issue drafts payable on sight, which often compels the foreign customer to settle for his goods two or three weeks before they arrive, for the draft usually goes on a faster steamer than the goods themselves. A slip attached to sight-drafts stating "not to be presented until the arrival of the goods" would avoid this injustice, which injures the buyer without benefiting the manufacturer to a corresponding degree. A great many manufacturers, apparently under the impression that authority to draw at sight is equivalent to spot cash, allow the same cash discount to the foreign buyer that they do to the export commission house or export merchant who has actually made a cash purchase and assumed all risks as to whether the foreign buyer will eventually pay. This is unjust to the firms who handle a considerable portion of the manufacturers' export orders, and it is also unbusinesslike.

Commercial letters of credit are also largely used. Practically all of the imports which come into the United States are paid for by means of letters of credit issued by American banks, authorizing the exporter at some European point to draw on them through their correspondent there up to the total amount for which the letter of credit is issued. The seller simply draws on the bank where this credit is deposited, attaching bills of lading, etc., to his draft as usual. When the bank in the buyer's city receives the draft, if it is for thirty, sixty, or ninety days, it usually removes the bill of lading and turns it over to the buyer. In New York, some banks require only a trust receipt for security, while others demand additional collateral, such as warehouse receipts, other bills of lading, or bills receivable endorsed over to the bank. This is the practice in New York on import commercial credits. The volume of export business handled in this manner is not nearly so large, the majority of payments being by drafts against shipping documents in the manner already described. As between large firms, however, the commercial letter of credit is considerably used as a form of payment on large transactions.

In countries where banking facilities are limited, drawing against shipping-documents is not always practicable; and it is in these regions that the export commission merchant is the most valuable auxiliary to the manufacturer. Even with the most remote localities, American facilities for financing foreign orders are steadily improving. Ten years ago there was hardly a bank outside of New York City and one or two other export centres that was in a position to handle export drafts intelligently. To-day nearly every city in the country has at least one bank fully equipped to take care of this business, while a considerable number have correspondents in every part of the world.

THE MACHINERY OF CREDIT

The collection of credit accounts differs in no way from the collection of cash orders, so far as the mechanism of the banks is concerned. The granting of credit with intelligence and discretion is another matter. Here, again, conditions have changed enormously during the last ten years. At present a single American credit-reporting agency has its own offices, with American sub-managers, in sixty-seven foreign commercial centres, while banks in all parts of the country are making a careful study of foreign credit conditions and supplying themselves with local correspondents in every district to which the business of their clients may extend. There are on file in New York City, in the archives of a single agency, complete credit reports regarding more than 200,000 foreign business houses; and manufacturers themselves are steadily acquiring data on which their credit men can act with judgment.

The World's Work

WALTER H. PAGE, EDITOR

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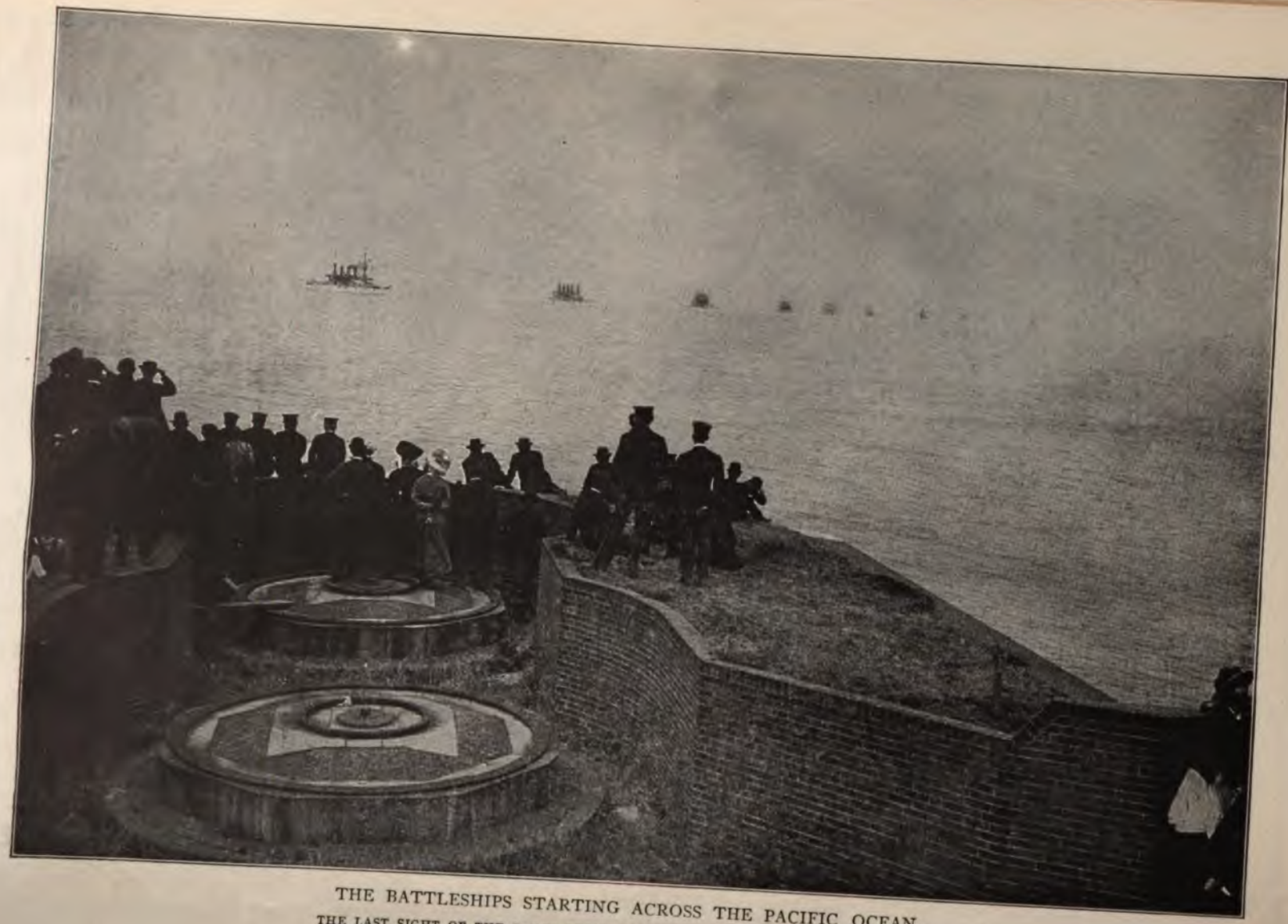

THE BATTLESHIPS STARTING ACROSS THE PACIFIC OCEAN

THE LAST SIGHT OF THE FLEET FROM OLD FORT ROMU

THE WORLD'S WORK

SEPTEMBER, 1908

VOLUME XVI NUMBER 5

The March of Events

THE fall begins hopefully. The harvest is big and the price of it high; and this means plenty for the largest economic group of our population.

The farmer, in fact, has hope of double good luck this year, as he had last year — both big crops and high prices. These do not come together under usual conditions; but the grain crops of Europe last year were small, and the outlook is that they will be small this year also. The value of this year's crop in the United States is estimated at eight billions of dollars — more than twice the value of the crop of 1904.

There is, too, an increasing amount of work for the skilled and for the unskilled. Even before the summer ended, practically all the mills of the Steel Corporation resumed operation with books full of orders, at only slightly reduced prices. The slump in steel manufacture seems past and thousands of workmen have gone back to work.

The railroads have already given employment to many thousands of men who had been laid off. The Illinois Central road, for instance, some time ago put 8,000 men to work on new construction and improvements. The Santa Fé took back 3,500 men who had been laid off from shops and road. The Pennsylvania Road reopened its big Eastern shops. Several railroads gave up plans for the reduction of wages, and for the further cutting of the lists of men at work. This in spite of the lessening of dividends.

Fourteen of the principal railroads, according to a computation by the *Wall Street Journal*, will pay about eighteen million dollars less in dividends this year than they paid last year. They include the Pennsylvania, the New York Central, the Atchison, the Southern. This falling-off of course reflects the conditions of the first half of the year.

Men of conservative temperaments will not rush to the conclusion that the full tide of prosperity is come. But the panic is past. If we had had no panic, perhaps bumper crops this year might have brought another period of wild inflation. As it is, the bounty of the fields will restore the country to its normal state, chastened, let us hope, by the memories of 1907, and ready for a long, steady, sober march on safe roads.

Every panic and every depression brings benefits. They may be costly, but they are benefits nevertheless, such as the weeding out of ill-managed or superfluous or unsound concerns, and especially the checking of reckless expense and the discouragement of speculative methods. It is a flat and unpleasant commonplace, but it is true, that a too long period of very great prosperity does more harm to the character of many men and many communities than even bankruptcy does to others. Extravagant living and a speculative atmosphere are likely to be fatal if not to the generation that first indulges in them, then surely to the next generation. It is better to be poor than to be soft.

This Presidential election has no malign, hardly a depressing, influence on business; for there is nothing to scare the people about. Perhaps some time we may even bury the venerable superstition that a Presidential election must needs make a stagnant year.

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MR. TAFT FORMALLY ACCEPTING THE REPUBLICAN NOMINATION FOR THE PRESIDENCY

ON THE VERANDA OF THE RESIDENCE OF HIS BROTHER, MR. CHARLES P. TAFT, OF CINCINNATI, O.

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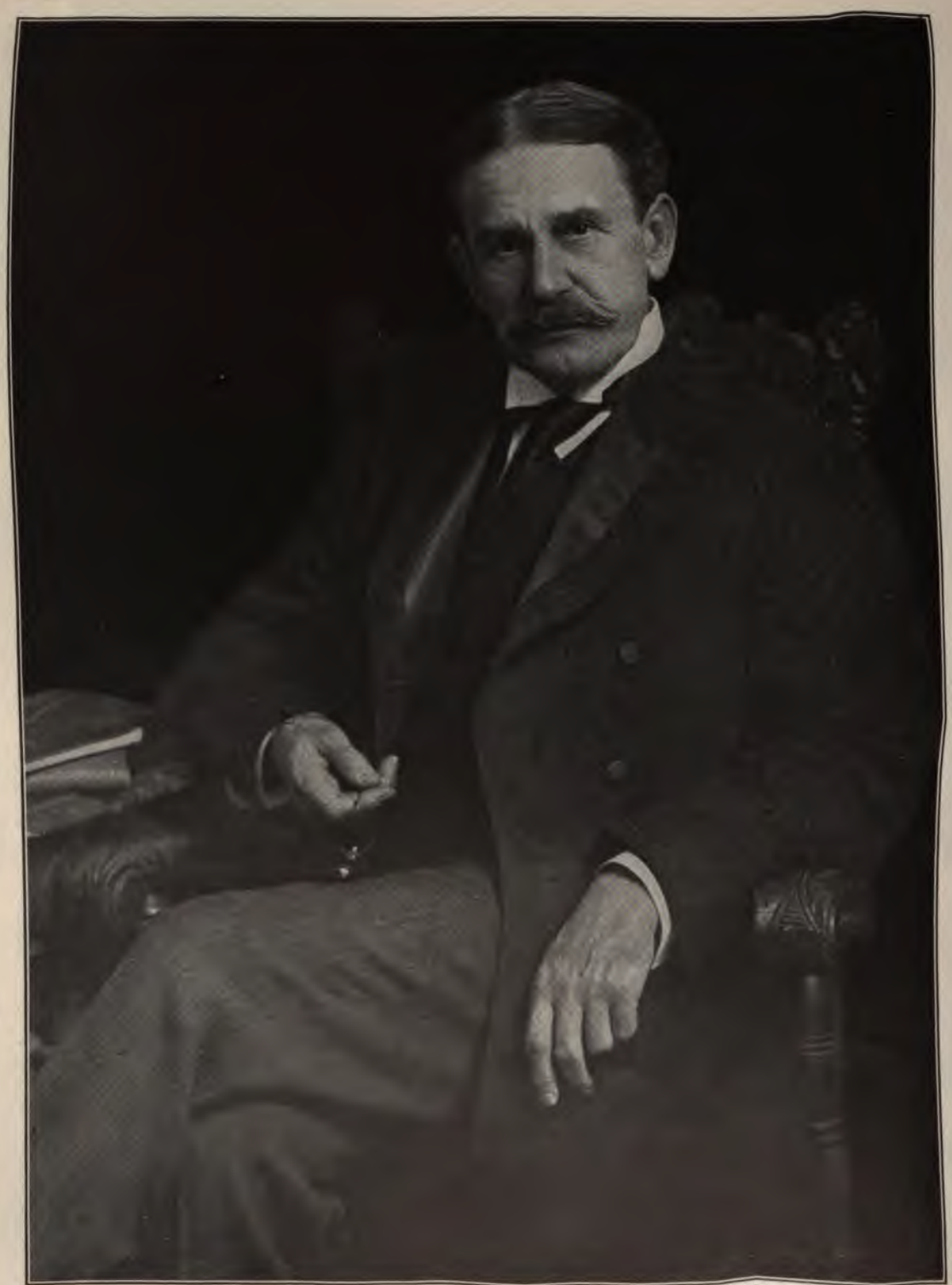

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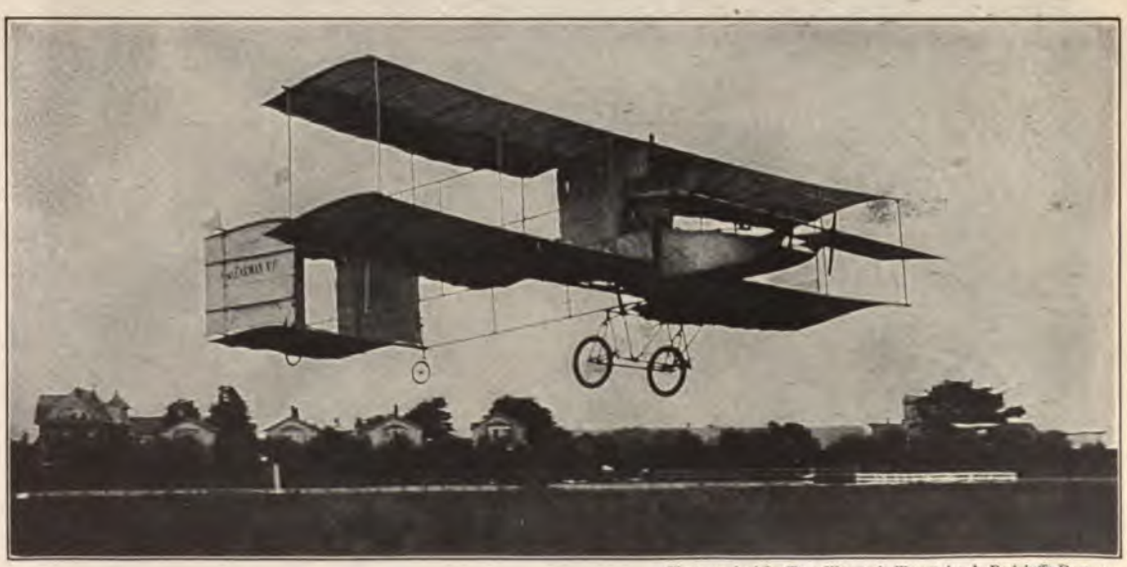
BISHOP DAVID H. GREER

WHO HAS SUCCEEDED THE LATE BISHOP POTTER IN THE EPISCOPAL DIOCESE OF NEW YORK, THE LARGEST IN THE UNITED STATES



Photographed for THE WORLD'S WORK, by A. Radclyffe Dugmore

MR. HENRI FARMAN'S FIRST FLIGHT IN THE UNITED STATES

THREE VIEWS OF HIS AEROPLANE IN ACTION, TAKEN LATE IN THE AFTERNOON, AT BRIGHTON BEACH, L. I.

THE START OF THE MARATHON RACE

The great endurance contest of about 26 miles

JOHN J. HAYES, I.-A. A. A.

Finishing the Marathon Race in 2 hours, 55 minutes and 18 seconds. He was the second to cross the line. Dorando, the Italian, who finished first, was disqualified

MELVIN W. SHEPPARD, I.-A. A. A.

Finishing the 1,500-metre flat race in 4 minutes 3⅗ seconds. H. A. Wilson of England, just behind him, looked an easy winner until the last few yards

MELVIN W. SHEPPARD, I.-A. A. A.

Breaking the world's record in the 800-metre flat race. He ran on and finished the half-mile, breaking the world's record for that distance also

RAY C. EWRY, N. Y. A. C.

Who won the standing high jump with a jump of 5 feet 2 inches

C. J. BACON, IRISH-AMERICAN A. A.

Clearing the last hurdle in the 400-metre hurdle race and finishing just ahead of his team-mate, R. L. Hillman, in 55 seconds

H. F. PORTER, I.-A. A. A.

Who established a new Olympic record of 6 feet 3 inches in the running high-jump

SOME AMERICAN WINNERS OF FINAL HEATS IN TH

RAY C. EWRY, N. Y. A. C.

Who won the standing broad-jump with a jump of 10 feet 11½ inches

THE RIFLE TEAM THAT WON THE SHOOT AT BISLEY

F. C. IRONS, CHICAGO A.C.

Who made a new Olympic record in the running broad-jump: 24 feet 6 inches

A. C. GILBERT, YALE

Who tied for first place in the pole-vault with his team-mate E. T. Cooke, of Cornell. They cleared 12 feet 2 inches, making a new Olympic record

MARTIN J. SHERIDAN, IRISH-AMERICAN A. A.

Perhaps the most consistent performer in present-day athletics, winning the discus throw. He was first in that event in both the Greek style, 124 feet 8 inches, and the free style, 134 feet 2 inches

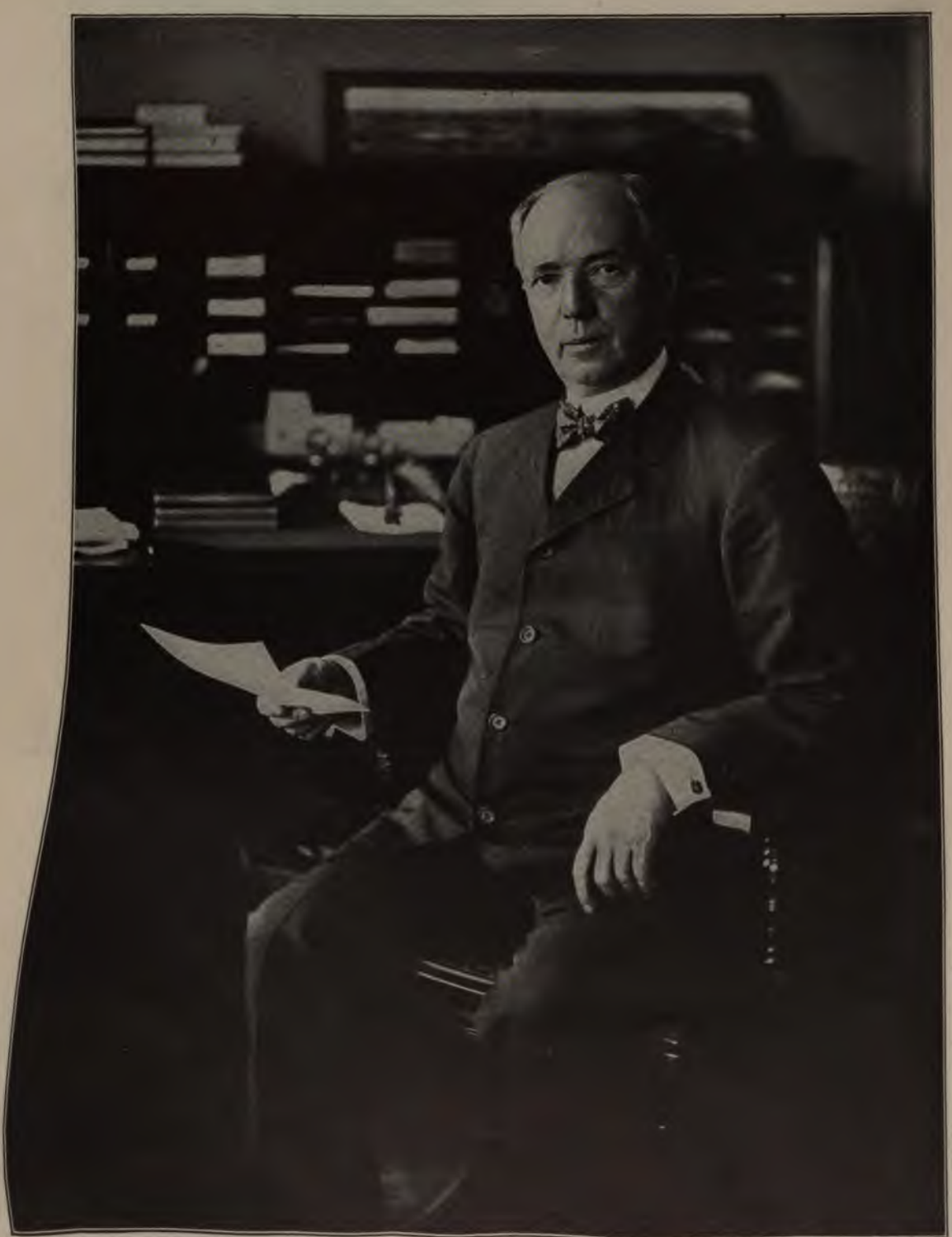
JOHN J. FLANAGAN, IRISH-AMERICAN A. A.

Who won the hammer-throw with 170 feet 4½ inches

RALPH ROSE, FORMERLY U. OF MICH.

Who won the shotput, with 46 feet 7½ inches

OLYMPIC GAMES AT SHEPHERD'S BUSH, LONDON, ENG.



Photograph, 1908, by Davis & Eickmeyer, N. Y.

MR. JOHN D. ARCHBOLD

A PROMINENT VICE-PRESIDENT OF THE STANDARD OIL COMPANY

LINCOLN'S FIRST LETTER OF ACCEPTANCE

ON MAY 23, 1860, Abraham Lincoln wrote the following letter, accepting the Republican nomination for the Presidency, to the chairman of the committee appointed to notify him:

"SIR: I accept the nomination tendered me by the convention over which you presided, and of which I am formally apprised in the letter of yourself and others, acting as a committee of the convention for that purpose.

"The declaration of principles and sentiments which accompanies your letter meets my approval; and it shall be my care not to violate or disregard it in any part.

Imploring the assistance of Divine Providence, and with due regard to the views and feelings of all who were represented in the convention — to the rights of all the states and territories and people of the nation; to the inviolability of the Constitution; and the perpetual union, harmony, and prosperity of all — I am most happy to coöperate for the practical success of the principles declared by the convention.

"Your obliged friend and fellow-citizen,

A. LINCOLN."

Fashions change. It has now become customary to write very long letters, discussing every plank in the platform and many other things besides. But there was certainly as much at stake on the election of 1860 as there is on this year's election; and, if either candidate this year had followed Lincoln's example of brevity, who shall say but he would not have gained favor by it?

THE LARGE POLITICAL FORCES — NOT THE INCIDENTS

VERY early in most campaigns (and it has been so in this one, in particular) the platforms and the speeches of acceptance and all the official expressions of the parties are practically forgotten. They become merged in the personalities of the candidates. For a few days, perhaps for a few weeks, men discussed the injunction planks, for example, and each candidate in his speech of acceptance gave much space to them. Already the sharp points of the controversy are lost in the general feeling that Mr. Taft knows more about the courts and holds to their inviolability more strongly than Mr. Bryan; and that is all that they do recall. And that is enough to recall; for the election will turn on the general judgment that the voters make of the two men. Their characters and their temperaments are the platforms.

Moreover, the "labor vote" and the "Negro vote," and the vote of most other special classes are bugaboos. With few exceptions, the men who belong to labor unions are going to vote as they would vote if Mr. Gompers had never been born; and most colored men will vote as they would have voted if there had been no Brownsville incident.

The big fact is, the great mass of voters are Democrats or Republicans; and as a rule they vote with their parties. Consider these figures:

Popular Vote at Recent Presidential Elections

	1896	1900	1904
Republican	7,104,779	7,207,923	7,623,486
Democratic	6,502,925	6,358,133	5,077,971

The great Republican vote in 1904 was exceptional; but even this "landslide" hardly showed such a wholesale defection or gain as some men always think may happen at the next election.

And it is the large influences — not this plank, nor this "vote," nor that local cause of displeasure or of popularity — that determine the election. The big facts this year are the popularity throughout the country (outside the "corporation centres") of the present administration and its policies and of Mr. Taft as a representative of them, the general feeling of confidence in his courage and his fitness, his personal popularity, and the pride that the Republican masses feel in the party's control of the Government. On the other side are the personal popularity of Mr. Bryan, and the strong habit of Democrats to vote the Democratic ticket. Side issues and incidental reasons will count for little under such nearly normal conditions; and the stronger party and the stronger personality will win — for these large reasons and in obedience to these large laws. Remembering these things, you may spare yourself from seriously considering the large headlines that the newspapers will put over reports of incidental events as the election draws near.

IS THERE "A WAVE OF RADICALISM?"

A WAVE of radicalism in the Middle West is thought to be favorable to Mr. Bryan. Is there such a wave? There is a deep-seated distrust in the interior of "Wall Street";

and by "Wall Street" is meant, of course, the great aggregations of money, the big industrial corporations, the big railroads, and the big banking houses. There is always a feeling, dormant if not expressed, that much of the profits of the interior somehow go to "Wall Street"; and this is true. When an industrial company or a railroad or a municipality wishes to sell its stocks and bonds, it takes them there — often to be bought by investors who themselves live in the interior. And many men in the West move to "Wall Street" as soon as they accumulate money.

But many things have happened lately to prevent such a feeling of discontent as spread over the agricultural states when bad crops and hard times caused the foreclosure of many farm mortgages. In the first place, there are now fewer farm mortgages, and the mortgages are paying their interest. The farmers are prosperous.

In the next place, the great corporations have for some time past been the sufferers from popular clamor, both for real and imaginary sins, until it is now they that have reason to complain of the people as represented by the Government rather than the people of them. If there is any "wave" of discontent, it is in "capitalistic" regions now.

Of quite as great importance, likewise, is another change that has come in recent years. "Wall Street" is yet the great financial centre of the country, and will remain so for as long a time as we now need to consider. But every other city, every town, every community, during the decade of high prosperity, itself became a sort of financial centre, strong enough at least to take care of its ordinary needs.

There are two perpetual causes of unrest and dissatisfaction: unfair or dishonest methods of the "money power" (for every unfair or dishonest method puts the burden at last on the people); and the natural jealousy which the unsuccessful feel of the successful at all times, but especially in times of depression. If these two causes of popular discontent are now inactive — and they seem to be as inactive now as they can well be — there can be no very great "radicalism in the Middle West," such as will be strongly operative in politics this year.

The mood for punitive legislation has already spent itself. Mr. Roosevelt and the legislatures and the Governors that took their cue from him have taken away the chance that a radical programme might have had. The dominant desire is for rest and "safety." Moreover, Mr. Taft—and the Roosevelt policies that he has helped to frame and to which he is pledged — is quite as "radical" as the present mood of the country.

Such incurable radicalism as exists will express itself in votes for the five minor parties, especially for the Independence party. Mr. Bryan's radical tendencies — toward the Government ownership of railroads, for example, and toward guaranteeing bank deposits and toward surrendering to Mr. Gompers — will repel more Democrats than they will attract Republicans. It is not a year of great discontent, and therefore not a year of "waves" of feeling.

MR. BRYAN'S LEGISLATIVE AND MR. TAFT'S ADMINISTRATIVE EXPERIENCE

THE offices that Mr. Bryan has held have all been elective. The offices that Mr. Taft has held have all been appointive. Mr. Bryan's official life has been wholly legislative. Mr. Taft's official experience covers every kind of service except legislative service. This is rather a curious contrast. The events in the public career of each follow:

Mr. Bryan, born in Illinois, March 19, 1860; elected to Congress from Nebraska 1890 and in 1892; defeated for the United States Senate; nominated for the Presidency in 1896, in 1900, and in 1908.

Mr. Taft, born in Cincinnati, September 15, 1857; collector of internal revenue, first district, Ohio, 1882-83; judge of the Superior Court of Ohio 1887-90; solicitor-general of the United States 1890-92; president of the United States Philippine Commission, from 1900 to 1904; first civil governor of the Philippine Islands, 1901 to 1904; Secretary of War from 1904 to 1908. He was sent by President Roosevelt to Rome in 1902 to confer with Pope Leo XIII. concerning the purchase of the lands of religious orders in the Philippines; has made official journeys as Secretary of War to Cuba, to Panama, to the Philippines, Japan, and China, and a trip around the world; nominated for the Presidency in 1908.

OPEN CAMPAIGN ACCOUNTS NOW

WHEN it came out that some of the great insurance companies had paid large sums to campaign funds, the public mind took firm hold on the scandal of such payments.

It became clear that the keepers of trust funds or similar institutions and corporations had no right to use money in this way unless (and this never happened) all the stockholders or beneficiaries consented. The public then woke up. A law requiring the publication of campaign accounts was made stronger in New York; and an act was passed by Congress, which is now first applicable to a national campaign, making it "unlawful for any corporation whatever to make a money contribution in connection with any election at which Presidential or Vice-Presidential electors or a Representative in Congress is to be voted for." Corporations violating this law are liable to a fine of $5,000, and any corporation officer or director who consents to any such contribution is liable to a fine of from $250 to $1,000, or imprisonment for a term of not more than one year, or both. Lawfully, therefore, no corporation can now contribute to either fund.

Both Presidential candidates before nomination declared themselves in favor of full publicity. And since then Mr. Taft has declared that the Republican committee, whose treasurer lives in New York, will comply with the New York law and publish, after the election, a full statement. Mr. Bryan promises to publish on October 15th the names of all persons who have contributed $100 or more; also, that contributions received after that date will be announced on the date received; and that no sum larger $100 will be accepted during the three days preceding the election.

These are positive steps forward. These laws may be evaded — to a degree. But the old method cannot come into scandalous use again. Presidential campaigns in the future must be conducted with their books open; and this is an incalculable moral gain.

LABOR'S DANGEROUS PART IN POLITICS

THE Federation of Labor, of which Mr. Samuel Gompers is the head, is a loosely organized body without individual members; for its membership is made up of labor unions themselves. It is a federation, not an organization of individuals. Its constitution distinctly forbids it to go into party politics. This is a wise provision because similar large labor organizations which went into politics wrecked themselves.

But Mr. Gompers is more belligerent than prudent; and, having failed to secure the labor plank that he wanted in the Republican platform, particularly the plank concerning injunctions, he went to the Democratic convention at Denver. There he was treated with more consideration, and the Democratic plank on this subject pleased him better, vague as much of it is and impossible of enactment. But it so far satisfied Mr. Gompers that, although he himself has hitherto been a Republican, he now favors Mr. Bryan and was understood as having promised to deliver the labor vote to the Democratic party. At Chicago, he says, "they gave me a stone," at Denver, "they made a concession to labor."

He declares that he never promised to try to deliver "the labor vote"; but his open activity is an effort to deliver it; and there his trouble begins. The labor organizations are said to contain something like two million men. It is very doubtful if they contain half this many voters; but, however many they may be, it has already become obvious that a great many of them, doubtless most of them, resent being "delivered." They are assuring Mr. Gompers that they propose to vote man by man as they please. So far has this revolt already gone that a rival federation of some of the unions is threatened.

It is therefore a very desperate game that Mr. Gompers is playing — for himself and his federation. Large labor organizations have almost uniformly been unsuccessful in their political efforts. Mr. Gompers himself tried two years ago, for instance, to defeat certain candidates for Congress, notably Mr. Littlefield of Maine; but he was not successful in a single one of these efforts. Labor organizations have been successful in political efforts only in municipal elections, that is to say, in restricted areas where they had very compact organizations; and the most notable case of their success, namely in San Francisco, is at the same time the most lamentable and disgraceful failure in municipal government that a city ever made. If, therefore, a judgment may be made by the past, Mr. Gompers is not only undertaking an impossible task, but he is running very great risk of wrecking his organization and of losing his own position and power. Certainly, as a practical influence on the election, he may be counted as a voice — not as a shepherd of votes. He is the more likely to turn out to be a misfortune to the Democrats, because in the Southern States, where the party is strongest, organized labor is least popular.

MAY THE DEMOCRATIC PARTY HAVE ANOTHER SECTIONAL SPLIT?

SOME of the Southern newspapers, notably the Charleston (S. C.) *News and Courier*, whose support of Mr. Bryan is half-hearted, not to say ironical, continue to bait him with questions about the Negro in politics. They ask, "If you are elected, Mr. Bryan, will you attempt to do anything to disturb the existing condition of the Negro in politics?" and they intimate to him plainly that if he should appoint colored men to office, he would commit an unforgivable offense. Mr. Bryan is silent on these questions. At least he does not answer to the point and with satisfying frankness. Whatever his own convictions are, he cannot afford to give the answer that these lukewarm friends of his in the South are trying to provoke him to give; for, if he should range himself with them, he would displease a very considerable part of the Democratic party in many of the Northern states. Fortunately for Mr. Bryan, his attitude on this subject is not of much practical importance so far as this election is concerned, but the discussion of the subject does suggest a very important inquiry touching the possible future of the Democratic party.

The South is the stronghold of the party; and, if the South should insist in the future that Democratic candidates for the Presidency shall approve of the total elimination of the colored man from politics, this would very quickly make the party more sectional than it is. If the Southern Democrats should insist upon this point, it may come about that the party will be split on the colored voter precisely as it was split half a century ago on slavery. The question is whether the total elimination of the Negro from politics and from office-holding is to have greater emphasis in the South than all other subjects.

THE STYLE OF PRESIDENTS AND CANDIDATES

THE epigram has played an important part in political discussion; and we have had such meteoric showers of them and of picturesque phrases in recent years that we shall miss them during this campaign. Mr. Taft is not epigrammatic. We shall not have from him such phrases as "the strenuous life," "the mollycoddle," "predatory wealth," "the spear that knows no brother," "the big stick," — and a thousand more. Where Mr. Roosevelt speaks of ethics, Mr. Taft speaks of the law. Nor can one imagine him minting an elaborate rhetorical coinage such as Cleveland's "innocuous desuetude," or "the cohesive power of public plunder," or sending up oratorical fireworks like Mr. Bryan's "crown of thorns and cross of gold." And Mr. Bryan himself becomes less rhetorical. The nearest thing to an epigram in Mr. Taft's speech of acceptance is the phrase, "the twilight zone between states' rights and Federalism," which he borrowed from Mr. Bryan. But Mr. Taft's style is preëminently clear and frank. He leaves you in no doubt about his meaning: it is unadorned clearness. In the volume of his addresses, "Present Day Problems," there is not an obscure nor an ornamental sentence. These speeches cover almost every important subject of the last decade — the achievements of the Republican party, the Roosevelt policies, an appreciation of General Grant, the army of the United States, China and its relations with the United States—and they all show his powers of clean-cut exposition and argument. His address on the Panama Canal, delivered before the Ohio State Bar Association in July, 1906, is probably the most comprehensive explanation ever given of that colossal undertaking. In his Cooper Union speech on "Labor and Capital," delivered early in the present year, he did not hesitate to express his opinions plainly on the most delicate problems before an audience to which many of his conclusions must have been distasteful. In Lexington, Ky., 1907, he spoke with equal frankness on the Negro question before a Southern audience. When our relations with Japan were a subject of world-wide talk he made a speech in Tokio, before a Japanese audience, which showed the same qualities. "It is said that there is one word that is never allowed to creep into the diplomatic correspondence between nations, however hostile; and that word is 'war,'" he declared. "But I am not a diplomat and am not bound by diplomatic usage. I can talk of war." And he proceeded to show plainly the absurdity of talk of a conflict between the two countries.

MR. HUGHES, A GREAT GOVERNOR

ONE of the most noteworthy cleansing and lifting influences in our recent political life has been the administration of Governor Hughes of New York. He does not belong to the politician type of man. He could never have become Governor, nor even have entered

public life at all, under ordinary conditions. He could not successfully seek the favor of the masses, for he cannot learn the arts of the politician. To the public he is awkward, unresponsive, unadaptable. He is a student with an ecclesiastical background, a somewhat remote and peculiar man. He has no sports that others enjoy with him. He has a cheerful philosophy of life, but it is framed in a sombre setting. A friend, who knows him well and prizes his friendship and has a high admiration for him, declined to give another good friend a card of introduction to Governor Hughes because (the reason for the visit had nothing to do with public affairs, directly or remotely) — because "Hughes is peculiar: he suspects his friends without meaning to do so." His strength lies in his orderly and conscientious industry and in his courage. He will do his duty unflinchingly, with a little additional satisfaction if it seem unpleasant. His essential strength as well as his temperamental weakness made him an impossible Presidential candidate.

But no state has had a better Governor than New York has had in him these two years. His entrance into political life was in answer to the popular demand for a man who could be trusted during the period of indignation and despondency and distrust that followed the great life-insurance scandal, and his unflinching conduct, as inquisitor, of the insurance investigation made him Governor.

He forced radical amendments to the insurance laws. He reformed the conduct of the state departments of insurance and banking. He forced the creation of public service commissions and the enactment of laws that put the Government above these corporations. He forced anti-gambling laws at the race-tracks. This is a remarkable record of achievement for two years, with the organized politicians of both parties and public and private plunderers of every kind in opposition to him. It is as noteworthy a public service as any Governor of any state can show, and the people of New York and of the whole country owe Mr. Hughes a lasting debt of gratitude.

He had made up his mind not to be a candidate for reelection because he can ill afford the financial loss that a man must suffer who serves as Governor of New York for $10,000 a year; for he faces a necessary deficit. And this is wrong. The state ought to pay a higher salary. Until it does, it will, as a rule, have as Governors men of fortune or men who wish to use the office as a political stepping-stone; and it will be hard for a man without fortune, whose chief ambition is to serve the state, to get the office.

But characteristically (that is to say, conscientiously), Mr. Hughes changed his mind and gave out this statement:

"Some time ago I said privately that I did not desire a renomination and that I felt that I could not undertake to serve a second term. This, however, was for reasons entirely personal. Upon further reflection, I am convinced that I have no right to regard these reasons as controlling, and that if renominated I ought to accept. But it is my desire that the will of the party to which I belong should be freely expressed and that it shall take such action as shall be most closely in accord with public sentiment. I believe that the people thoroughly understand the principles which I have sought to apply in administration, and, if they so desire, I shall regard it as a privilege and a duty to continue in office for another term."

That is the man, through and through. And if the state should not rise to the opportunity to reelect him, such a failure will mean only this — that it does not care for conscientious public service except by fits and starts. The good work that he has already done needs his continued service to extend it and to clinch it. For he is one of the best Governors that ever held the office; and the good influence of his administration on the public life of the whole country is well-nigh incalculable.

THE FLEET AND PACIFIC PROBLEMS OF THE FUTURE

THE reception of our fleet by our kinsmen of the Southern Seas had the enthusiasm of an unusual experience. But there was more than the conventional hospitality in their elaborate preparations and in their reception; and they did not suppress even some unwarranted conclusions. The Colonial Premier of New Zealand is reported to have said before the fleet arrived:

"The day will come when a great fight will be necessary for the supremacy of the white races in the Pacific, and when this time comes, Great Britain can have the assistance of the American fleet, and the two nations will be found fighting shoulder to shoulder."

This is a double prediction — first that there will be a war of races and that our kinship with the English will prove stronger than the solemnest international treaties.

This is a speech of colonial imprudence —

even of a sort of colonial violence. But the same expectation finds gentler expression, now in one way, now in another way, all over the world. To-day you will read it in France, to-morrow in Germany, at another time in England; and almost always you can find somebody in the United States, especially if you look toward the Pacific Coast, who has the feeling that at some time, in some way, there will be an open contest for supremacy on the Pacific between the Japanese and the Americans or the English. This remote fear of a race-clash lies deep in men's minds. It comes out not only on such an occasion as the reception of our fleet in Australia, but it is hinted at in the President's formulation of our naval policy in his speech at the War College; for although he did not mention any nation, he spoke of the possible dangers of sharp international differences because of immigration, and our gravest troubles about immigration are about the coming of men from Asia. This remote thought was in the minds of our Government and was suggested to the minds of every other government by the long voyage of our fleet to the Pacific. It is this remote possibility that makes it advisable, and indeed necessary, to have a naval equipment on the Pacific. It is this remote thought that will not down in spite of the fact that there is not the slightest danger of war for many years to come. But men will not forget that there is such a thing as race feeling. The Japanese probably would not welcome white immigrants into their empire even to the extent to which the Japanese have come to the United States or to Canada.

But it is not only criminal, it is stupid, to talk or to think about war with Japan within any early period; and, if you track the thought of it home in any direction, you will find an absurdity. In the first place, neither nation has anything to fight about nor any desire to fight. In the second place, Japan cannot afford war, for purely financial reasons, for a good many years to come. For a long time yet it will need to borrow money, not only for the further building up of its navy and its army, but especially for the development of its industries; and it must retain and strengthen its credit throughout the world. A war with any white nation would at once shut off the sources of financial supply.

Looking further into the far future — when the Japanese push harder for admission in great numbers to our country or to British North America or to Australia, and when they encounter fiercer opposition (if they do), there may be cause to fear real difficulties. But nobody has any sound reason to predict that even great difficulties of this kind may not be settled in peaceful ways.

PERFECTING FLYING MACHINES FOR WAR

IT IS a most remarkable thing — how the whole public, after long incredulity and indifference and even ridicule, is waking up to the keenest interest in flying machines. And our Government, too long neglectful perhaps, is showing a similar activity.

A million dollars for airships, or perhaps an odd figure a few hundred thousand less, will be one of the items in the War Department's budget to be asked of Congress at its next meeting. If Congress gives the money and puts itself on record as favoring the idea of preparation for fighting battles in the air, this will be the beginning of an aërial navy to comprise every type of air-craft that proves itself worthy. The U. S. Army Signal Corps, under Brigadier-General Allen, has already begun experiments with aëroplanes and a small dirigible balloon. If more money can be had, the Army will start at once the construction of a large balloon-house of sufficient size to accommodate two airships of the Zeppelin proportions and will then proceed to build one or two dirigibles, perhaps one of the French Lebaudy type and one of the Zeppelin design. A corps of engineers of ability will also be detailed to carry on, from the ground up, a series of exhaustive experiments, with apparatus to be made as they progress, to determine with all possible exactness the complex laws of aërodynamics, upon which rests the scientific designing of both dirigible balloons and aëroplanes. This investigation will go on hand in hand with field practice on the air-craft the Government already owns.

The aëronautical experts in our army now see more possibilities in dirigible balloons than they see in the aëroplane, which they think will have only excellent special uses in land fighting, unless new possibilities develop with practice. Although Captain T. S. Baldwin gets some good work out of his hundred-foot dirigibles, in comparatively quiet air, and Mr. A. M. Herring believes that he can build an aëroplane to carry twenty men, it is now generally taken as an axiom that efficiency

goes with smallness in the case of the aëroplane, and that the bigger you make dirigible balloons the more efficient and the more manageable they are in all kinds of weather. Some military aëronauts who are not given to fanciful speculation speak seriously of the possibility of great balloon-craft of the Zeppelin plan a thousand or more feet long and armored, as well as armed with big guns. They say that a balloon's lifting capacity increases as the cube of its length and breadth, doubling either making the balloon lift eight times as much. The resistance offered by the air to such balloons, they say, varies only as the square, doubling length or breadth making the power necessary to drive at a given speed only four times as many horse-power. Thus, with every increase in size, comes a surplus that can be used either in carrying more powerful engines for developing higher speeds, or in carrying heavier loads in the way of armor and guns.

But it is right now the intention of the Army to ask only for the air-craft that has proven itself efficient, and it will be some years, if ever, before our war balloons will carry armor plates; and a coat of aluminum paint will be their only protection against bullets. Our present methods of range-finding will have to be improved so as to determine the range of an object coming at an uncertain height in air before big guns can "find" either aëroplanes or dirigibles. The costs of air-fleets are high. The Zeppelin ship is to cost Germany a half a million, and the reported costs of the French balloons like *La République* are in the neighborhood of a quarter of a million. Brigadier-General Allen thinks the costs of construction of these, since we will not spend anything in experimental construction, ought to be much less than the reported figures in Europe. Aëroplanes should cost about $5,000; they can be built for less. England, Germany, France, and even Russia have been spending large sums in aërial preparation. Congress will decide whether Uncle Sam can afford to spend a million in learning how to spend some more millions in the development of a kind of warfare that may in the end do away with all wars because of its possibilities of destruction.

THE GREAT STANDARD OIL FINE

THE United States Circuit Court of Appeals for the Seventh District (Judge Grosscup delivering the opinion) reversed the finding of the District Court (Judge Landis) in the case against the Standard Oil Company of Indiana, which was convicted of accepting concessions from the Chicago and Alton Railroad Company on shipments of oil — contrary to the Elkins law — and fined more than 29 million dollars.

Every well-informed man expected such a result, not only because this fine was egregious and confiscatory, but because some of the most important evidence was excluded by Judge Landis, and his imposing of the fine seemed to show an extra-judicial temperament and state of mind. The net result on the commercial community here and abroad was that if any corporation can be convicted in this way and punished in such excessive measure, corporate property has no security. To the lay mind, the conviction and the sentence seemed sensational, confiscatory, and rather a judgment by public clamor than by the impartial processes of law. The reversal was expected. It turned on three main points:

That the Standard Oil Company of Indiana should have been allowed to show that it did not know of the published rate.

That the fine should have been based on the number of shipments, not on the number of cars.

That Judge Landis abused the discretion vested in the court when he fined a $1,000,000 corporation $29,000,000 in an effort to reach a corporation that was not before his court.

The decision delivered by the Court of Appeals not only reverses the lower court for these reasons, but is a direct rebuke to Judge Landis. It goes on to say:

> "The Interstate Commerce Act, important as that law is, is not the only law under which we live. We live under a guaranty that reaches back to the beginnings of our law, and is securely planted in every constitution of civilized government, that no one shall be punished until he has been heard and above this fundamental guaranty there can be set no higher prerogative; for let it once come to pass that under the stress of enforcing commercial equality any power in the Government may override the fundamental human right of being judged only after having been duly tried — a right just as essential to men in the associated relationship of the corporation as to the men in the relationship of copartners, or to men individually — there will remain no commerce worth the name to safeguard. The beginning of commerce is constitutional government, and the foundation of constitutional government is the faith that every guaranty of our institutions, no matter what the provocation, will be sacredly observed."

The finding of the lower court was the more unfortunate because the defendant is a great corporation that has been judged guilty in the court of much newspaper and magazine argument and of a large section of common opinion. For this reason, the case has provoked during its progress a vast deal of popular clamor and much prejudice. It is always unfortunate when these untrustworthy feelings become mingled with questions of law and equity. It was for this reason, no doubt, that the Court of Appeals felt called on to deliver a very sweeping opinion — a sort of modern rescript of one part of Magna Charta.

The case will — as is proper — be argued again by the Government. The Court of Appeals made it clear that the defendant should be allowed to mitigate its offense by pleading that it was ignorant of the filed rate. Such a plea will be likely to reduce the penalty to the minimum fine of $1,000 per count, — instead of $20,000 — if another conviction should follow. The court also makes it clear that the basis of imposing a fine should be shipments, not carloads. On this basis, the 1,462 counts of the first trial will probably shrink to less than two hundred. The new trial, even in case of a conviction, will therefore probably result in a fine of at most a few hundred thousand dollars.

But the amount of the fine is not the point of importance. The important question is whether the Standard Oil Company of Indiana is guilty; and the reversal of Judge Landis by the Court of Appeals is not the final answer to that question. Thoughtful public opinion will withhold its judgment till the last decision of the courts is rendered.

President Roosevelt has been quoted in the newspapers as saying that the decision of the Court of Appeals is, in effect, a miscarriage of justice — to the regret of most thoughtful men. Granted if you like either that Judge Landis was right and the Court of Appeals wrong, or that the Court of Appeals is right and that Judge Landis is wrong. Any man is entitled to hold either opinion. But it is unfortunate that any high officer, whose opinion will affect public feeling, should criticize the courts so as to bring them within the range of popular, sentimental judgment.

If the Standard Oil Company has violated the law in this case or in any other case, let it be punished, as every law-breaker ought to be. But let the question of its guilt and of its punishment be legally determined, and, when the proper courts have given their decisions, let the courts be held in respect. One court is the proper official critic of another court; and there is no other proper official critic.

FROM CITY TO FARM — SOME INTERESTING FAMILY EXPERIENCES

THE WORLD'S WORK has never even made mention of the need of sending families that are willing to work out of the city to the country but that it brought a number of letters and suggestions. One of the most hopeful correspondents is the Homeseekers' Association of Chicago, which holds public meetings at which the opportunities in the country are explained by speakers and by pictures; and the association finds country homes for capable people who seek its help. Its managers soon discovered that the effort to move families as a charity (by giving them fare and expense-money) proved a failure, "not because they were imposed on by undeserving people to any great extent, but because the city man of that character when transplanted to the country needs careful and intelligent supervision for some time, till he has learned enough of country life and work to stand on his own feet."

The most hopeful plan found is to work with the assistance of a corresponding organization in the country, composed of business men who will help the newcomers to earn land and homes. One such organization gives them farm work by the day when needed, and supplies tools and builds cabins and gives aid in such practical ways — on a business basis.

"One thing that perplexes and worries us is the land fraud." If men who have good farm land would help town-workers to buy it, at a reasonable profit, giving helpful supervision in the meantime, this would go far to solve the problem. Again, you observe, as you will observe before you go far in all such studies, the crying need is of a better organization of rural life. To relieve the crowding of the cities it is necessary to have country life itself organized to help the coming of men and families by whose success the communities whither they go will profit. The country must call. The city cannot drive.

Another worker in this good cause, in Brooklyn, N. Y., writes: "You may care to learn the results with three Brooklyn families."

"One family, father age 38 years, mother, two sons ages 14 and 12, and three daughters ages

16, 10, and 8. The man was a printer. This family was sent to Maine, and placed on a farm that had not been worked for two years. The farmer who owned the adjoining farm agreed to pay for the service of the father and two sons at $60 a month, and to supply house and milk and vegetables. The rent of a five-roomed house was $6 a month. The oldest daughter hired herself out to a doctor's family for $12 a month. I visited this family who had been city-bound all their lives, to learn from their own lips how the change agreed with them. The general verdict was, 'No more city for me.' The man said, 'We are just becoming farmers and next year our labor will be worth much more!'

"Another family, a man, his wife, two small children, and the wife's brother, the men both teamsters. This family was sent to New Hampshire. Both men were hired by the same farmer for $65 a month and board for the family, with the use of a cottage. They consider themselves very fortunate and have no desire to return to the city.

"Another case was that of a young man who had farmed in the West. Two years ago he came to New York and became a shipping clerk but was thrown out during the depression of last winter. He was sent to a large hay, potato, and fruit farm in New Hampshire. The farmer had agreed to pay him $40 a month and 'keep'; but soon after he arrived a neighboring farmer offered him $50 a month, and his employer was forced to pay him that amount to keep his services.

"I have yet to learn of any case where the family or individual is not contented."

HELPING YOUNG MEN TO FIND THEMSELVES

A THIN, weak, unhappy youth, nineteen years old, who had been successively office boy, florist's helper, and delivery wagon driver for different firms, without being able to make any progress or even to retain his job, called at the Vocation Bureau in Boston for advice. It soon came out that he was very fond of drawing and spent much time with his pencil. He received helpful suggestions about developing his talent and he was able soon to secure work that he enjoyed in a sign-painting shop — the first work that he had done with enthusiasm.

Another young man who brought his perplexity to the bureau was a bookkeeper. He had lost interest in his work and wondered why. It came out that he had a passion for machinery and spent his spare time reading the mechanical journals or making things with tools. He was happily started by the bureau course of mechanical study, and found a new position which brought him into contact with machinery.

A young man of twenty-two years, who was employed as assistant buyer in a department store, laid before the bureau his rather vague ambition to become a lawyer. He proved to be moderate and non-aggressive intellectually; he had a poor memory, he was not fond of argument, and he had little talent for public speaking. He was told that he lacked most of the qualities of a successful lawyer and he was advised to drop his evening law studies and to apply himself to a study of his business with the idea of becoming a full-fledged buyer. He saw the good sense of this advice, and realized that his future lay in the store in which he had already made a good start.

These instances illustrate the workings of this Vocation Bureau, an organization established in Boston by private philanthropy, to assist young men and women in finding out the work for which they are best fitted, in preparing themselves for it, and in getting a start. The bureau applies common sense to the problem, which puzzles many a young person, of selecting a vocation. The persons who come for consultation are examined by the counsellor of the bureau, who makes a diagnosis of the case and gives a prescription based on mature experience and shrewd common sense.

It is apparent that there is a valuable place in the life of a great city for an organization which shall act as a vocational pathfinder. Many a young man chooses his occupation in such a haphazard manner that he is fortunate if he does not squander several years knocking about in various places before he finds himself and starts at the work for which his aptitudes and capabilities best fit him. He is unable to make his first selection with the intelligent care that its great importance demands, and the result is an enormous economic waste. The young man misplaced is the cause of a loss of huge sums annually to employers, as well as of wasted or partially wasted lives to the workers themselves.

LORD CROMER AND HIS PROPHECY

A SHIVER ran for a day through Europe when Lord Cromer declared, in the House of Lords, that well-informed men regarded it as certain that a great war would be forced upon Great Britain within a few years. Although no man in high authority has expressed a similar view, and many have disclaimed sharing Lord Cromer's fear (of Germany, of course), his remark will be

remembered for a long time. Just when it was made the British navy was going through its manœuvres in the North Sea with a fleet of 315 warships, the largest that was ever assembled. It is worth noting that the fleet was directed by the Admiralty Board in London by means of wireless telegraphy. Lord Cromer's unpleasant remark was made about the same time, too, that a bulletin was issued by the general staff of the German army which ought to make any thought of war by any civilized nation impossible; for it showed the incalculable destructiveness and horror of war with the use of the destructive machinery that the great nations now command. This official bulletin declared, for instance, that the German army could put four and one half millions of troops in the field, and that a war between Germany and any other European power would cost Germany $1,500,000,000 a year in addition to the indirect loss through financial depressions and the stopping of industry, and that the modern engines of slaughter are so efficient that more than 20 per cent. of an army would reasonably be expected to fall in battle. In other words, during the first year of a war with any European power, Germany would lose 900,000 men.

About the same time, too, our new Ambassador to Germany, who is a distinguished scholar in diplomatic history, pointed out the great change that has recently taken place in the functions of diplomatists. Formerly it was their first duty to emphasize the complete sovereignty of each state as if it existed for itself alone, and each one had it as his main duty to strengthen his own state by weakening others. Now the best diplomatic equipment is a wide knowledge of history, and the service expected of Ambassadors and Ministers is to prevent conflicts. It is analogous to the modern service of the lawyer, which is rather to prevent litigation than to encourage it. The gist of Dr. Hill's argument was, "that all states more and more belong to a real family of nations and that the interest and the happiness of the whole family are to be considered on the same parallel with the interest and happiness of individual countries."

Between the spread of an enlightened doctrine like this and the undoubted growth of peace sentiment throughout the world and the perfection of the machinery of slaughter, including wireless telegraphy, noiseless guns, and the rapid development of aërial navigation, there does seem a fair chance that the great nations of the earth will, at least for a long time to come, refrain from war with one another.

WILL ENGLAND SURRENDER TO SOCIALISM?

IF THERE are worse evils than a stationary population, one of them surely is a population so dense and so economically weak as to call for old-age pensions from the government; and this is what they have come to in England. For Parliament, when this is written, is working on the details of such a measure, the main proposition of which has become a law — a measure which provides that every man who has reached seventy shall have a certain income from the public treasury if his own income fall below a certain minimum, and that he shall be maintained by the public if he have no income at all. Germany has an old-age pension scheme (a plan whereby the beneficiary must himself contribute to the fund, in part), and there has long been an increasing pressure for the enactment of a similar law in England. But it came with a suddeness that was unexpected. Nor did it come as a direct Labor measure, but rather as the result of socialistic agitation in England, where socialism has shaped the thought of so large a part of the population. The estimates of the cost of such an old-age pension scheme to the Government varies from $35,000,000 to $57,000,000 a year. Chronologically and logically the plan is a sequel to the elaborate system of poor laws which is a part of the English social and ecclesiastical as well as political scheme of things.

The worst feature about the enactment of such a law is not the burden of taxation that it imposes, nor yet the tendency toward a more complete socialistic scheme of government; but the main fact is that it indicates a fundamentally wrong economic system of life. If men cannot earn enough to provide for old age or during their productive period cannot build up families — families who can and will take care of them — if they have not the same facilities and tendencies to save that they have to spend, and if wages and earnings are too low to allow the possibility of saving for old age, then there is something radically wrong in the economic organization of society. The wrong thing may be an improper organization of industry, or it may be the old division of men into fixed industrial as well as social classes. Be the

cause what it may, the result shows that there is not free play for individual initiative and individual ability, and there is not a fair return for individual enterprise and efficiency. As a symptom of a deep-seated economic disease, England's coming to an old-age pension law is far more significant than it is as a palliation of poverty or an additional burden on the public purse.

All this is true; else, the economic philosophy which the English race has hitherto based its scheme of civilization on is wrong, and socialism is the hope of the future.

A COUNTRY THAT HAS NO PAUPERS

ACROSS a narrow sea from England is a little country which, though densely populated, has practically no paupers, nor do the people emigrate. This is thrifty Belgium, where there is thrift of the individual, thrift of the family, coöperative thrift, national thrift, and prosperity in the face of the keenest competition of its powerful neighbors, England, France, and Germany

The Government, instead of paying old-age pensions and dispensing charity, has machinery for the encouragement of thrift and thereby for the prevention of dependence. It pays the individual interest on his savings, it insures his life and it will give him an annuity if he save to pay for it.

II

In the Government Savings-Bank, deposits may be made in every post office of the kingdom and in all the branches of the National Bank. The minimum deposit is one franc. There is no maximum. Deposits are made by special adhesive deposit stamps, which are, in reality, receipts for the money paid in, and which are pasted in a bank book delivered to each depositor free of charge and bearing an official number. In this book is entered every transaction between the depositor and the bank, including the calculating of interest, which is done annually. Depositors may correspond with the National Savings-Bank free of postal charges and, after the issue of a book, a depositor may put money in any post-office of the kingdom.

The Government provides in a special way for those who cannot put aside so large a sum as a franc at a time. It authorises smaller deposits by postage stamps in order to encourage school children, farm laborers, and the like; and rural postmen carry with them the necessary forms for this purpose, and urge the public to make use of the savings-bank in this way.

Life annuities may be contracted for at all branches of the savings-bank, at all branches of the national bank, at all post offices, and at the offices of all tax receivers.

The minimum payment that may be made is one franc, and the smallest annuity paid by the fund is one franc, while the largest is twelve hundred francs. The annuities become payable at the end of each completed year from the age of fifty to sixty-five.

Annuities are contracted for in two ways, by paying in the capital benefit to any heir, and by providing that the capital, less 3 per cent. for general expenses, shall be paid over to the heirs after the death of the beneficiary. Any person who depends solely upon his own work for his sustenance, and who, before the age stipulated for the payment of the annuity, becomes disabled, is allowed to draw at once an annuity calculated from the amount of the payments made up to the time of his becoming incapacitated.

In addition to the annuity fund there is a Government insurance fund, the management of which is under Government guarantee. Life or endowment policies may be contracted for, the latter payable at the end of ten, fifteen, twenty, or twenty-five years, or for a period ending at the ages of fifty-five, sixty, or sixty-five.

III

What then has been the result?

This policy has instilled ideas of thrift in the minds of the schoolchildren, it has driven thrift into the household where the income of the husband, or of wife and husband combined, is rarely spent, and in most cases a liberal margin is left for the future. The people live within their incomes. "Our income," they say, "is so much a year; we must live within it and put away something for our old days."

Among English speaking people, this is the habit: "We must have this and that and go here and there, and so we must bring our income up to that mark at all hazards."

But the Belgian household enjoys contentment and awaits with patience a larger income before buying this and that and before going here and there; and they do not try to keep

the pace set by those whose means are greater. The observer sees on every hand men and women, still with the freshness of youth, who have retired from active, bread-winning work, and are enjoying life on the capital saved by reasonable economy. They have enjoyed life in moderation, they have traveled a little, many of them are familiar with art, music, literature, and the drama, but they have wisely avoided that continuous brain-racking, nerve-straining struggle to surpass their neighbors. They have lived wisely — neither slaves nor prodigals — and their declining years are provided for.

It is sometimes said that such a plan of life discourages initiative and enterprise. Yet Belgium holds its own in the industrial and commercial world; its capital is an important financial centre; the nation is most prosperous and many individual fortunes are large.

The opinion of the Belgians is that this spirit of thrift would not have been thus developed had the savings-banks been private concerns and had the Government left annuities and insurance to be managed by private enterprise. It is the absolute security offered by the Government that has developed the desire on the part of the people to save and to entrust their money to the national provident institutions, when not invested either in industry or trade. They contend that Belgium is prosperous to-day and that she is a land practically devoid of paupers because of this Government policy.

RENEWED LIBERAL GOVERNMENT IN TURKEY

THE liberalization of governments proceeds, as most other large movements in human society proceed, by waves rather than by a steady march. The remarkable progress of Japan has caused us to forget how new its system of constitutional government is. Russia is taking yet uncertain initial steps with its Duma. Persia is so remote from the United States that we only dimly understand the movement — back and forward — for constitutional government there. Now, constitutional reform is again promised in Turkey, this time with better hope of success than in 1876. For the announcement of a liberal government by the Sultan is not a new but a renewed event. The constitutional government then drawn up and set going (there was a meeting of Parliament in 1877) was cut short by the Russo-Turkish war; and at the close of the war the old régime was resumed. The parliamentary, or liberal party, however, has existed ever since, and it is known as the Young Turk party. Its efforts have been continuous and persistent; and, although recent disturbing events have provoked little attention at a distance, the Sultan was in reality forced to yield. Thus, some of the main causes which prevented the success of the experiment more than thirty years ago are not now operative; and, although skepticism is expressed in many well-informed quarters of the world, there is at least a chance that a more or less free government may have an opportunity now to work itself out. The growth of disaffection in the Turkish provinces and its influence at home, as well as the gradual push of liberal events, made some such change inevitable.

The chief provisions of the liberal government that is promised are the usual ones of a parliament, of a just system of taxation, of individual liberty, of religious freedom, and of real courts of justice. The people, as a rule, are not yet trained to such a system of government and they will make but slow progress in the use of some at least of these modern tools. But, if the constitution last long enough for the new machinery to get well in motion, it will be difficult to turn the clock back again. One favorable circumstance is that the army is favorable to the new order of things. If this remain so, it will be difficult to use it in any crisis to force the country back under an absolute monarchy. Amnesty was declared of all political exiles, and the ranks of the Young Turks will be strengthened by many men who have been living in other lands.

This renewed experiment in Turkey is the more interesting because the Sultan is the spiritual as well as the temporal head of the nation; and whether a really liberal government can be developed under Mohammedan institutions will be an interesting thing to watch.

TOLSTOI'S VAIN CRY FOR MARTYRDOM

IN THE sober judgment of the world, Count Tolstoi will be regarded as an unbalanced great man, not because his fierce spirit of human sympathy drove him into eccentric ways of living, but because he hopes for the betterment of the race by a primitive economic — or uneconomic — creed that is outworn.

Yet there is no other such man now living, no other who can speak to the whole world in

such tones of moral indignation and be heard everywhere outside his own land. Surely there is no other subject of the Czar who could so speak without provoking the vengeance that would give power to his vain cry. In his recent letter addressed to all the public officers of Russia, which he called "I Cannot Be Silent," he cries out to them to stop the killing of men, and he puts the blame upon all who are in authority and the higher the authority the greater the blame.

"You say you commit all these horrors to restore peace and order.

"By what means do you restore them? By the fact that you, representatives of a Christian authority, leaders and teachers approved and encouraged by the servants of the Church, destroy the last vestige of faith and morality in men by committing the greatest crimes — lies, perfidy, torture of all sorts, and the last, most awful of crimes, the one most abhorrent to every human heart not utterly depraved — not just a murder, a single murder, but murders innumerable which you think to justify by stupid references to such and such statutes written by yourselves, in those stupid and lying books of yours which you blasphemously call the Laws.

"What you are doing you do not for the people, but for yourselves, to retain the position you occupy, a position you erroneously consider advantageous, but which is really a most pitiful and abominable one. So do not say that you do it for the people; that is not true! All the abominations you do are done for yourselves, for your own covetous, ambitious, vain, vindictive, personal ends, in order to continue a little longer in the depravity in which you live and which seems to you desirable.

"However much you may declare that all you do is done for the good of the people, men are beginning more and more to understand you, and ever more and more to despise you, and to regard your measures of restraint and suppression not as you wish them to be regarded, as the action of some kind of higher collective being, the Government — but as the personal evil deeds of separate evil self-seekers."

The pathetic fact about it all is that this is read everywhere but in Russia. The public whose indignation he is trying to arouse have no chance to read him; and the Emperor and the bureaucracy and the hierarchy whom he condemns give him the severest punishment by refusing the martyrdom that he prays for. The voice crying in the wilderness arouses nobody who can help. There was never a more pathetic proof of the futility of a moral impulse detached from all power.

"RACE SUICIDE" OR "OVERCROWDING"

MUCH talk about "race suicide" has done something to produce a popular impression that a population is valuable in proportion to its numbers — a fallacy that our industrial life also has encouraged. This, of course, is not always true. Perhaps it is not true at all except in sparsely settled countries. Nor is it true that the slightly shrinking population of France is necessarily a proof of national decline.

For the last forty years of the last century the French population was practically stationary, and during the present century it has decreased.

The decrease last year was about 20,000. Yet nobody can say that the French people have slipped back in civilization or in efficiency during the last half century. During that time they waged a great, disastrous war and they paid the enormous war tax; and the securities of their government now stand higher in the market than the securities of the government that defeated them.

The population in France increased between 1866 and 1906 only from 38,000,000 to 39,000,000. During the same time the population of Great Britain increased from 30,000,000 to 42,000,000. During those forty years England made great strides, but it would be difficult to prove that its advancement was relatively greater than the advancement of France. Certainly the problems of poverty and overcrowding which press the English hard have not been felt to the same extent by the French. Men, therefore, who wish to think clearly rather than to accept popular phrases for thought, will be disposed to look far beneath the surface before they uncompromisingly accept the doctrine that a country is great in proportion to its density of population, or that a stationary population is, under all conditions, an evidence of decline. Although the French Government is troubled by the decrease of population and makes unsuccessful efforts to prevent it, there is a large and strong body of opinion which favors the restriction of population. Those who hold this opinion regard the numerical decline of the French as a hopeful experiment — an experiment in putting the emphasis on the quality of men rather than on their number.

Probably the strongest force that makes for small families among the French, and among the richer classes of people in almost every country, is not the smothering of the parental

instinct nor the shirking of parental responsibilities so much as it is the appreciation of the individual as distinguished from mere numbers. Ambitious parents prefer to make sure of the proper training and the proper equipment for life of a few children than to run the risk of less good opportunities for more. In this feeling both worthy and unworthy methods are doubtless combined, but our age of civilization is an age when far more attention is paid to the individual than in times when the number of fighters or even the number of workers was more important than their quality. Surely the cry that is raised about the decline of births in families of good American stock is hardly warranted as a sweeping complaint, for the rule is that those families which show the most vigor in other ways show vigor also in perpetuating themselves.

APROPOS THE OLYMPIC GAMES

THE American team won the track and field events of the Olympic games in London by a score which was greater than that of all the other competitors combined. Its nearest rival, the team of Great Britain, was 48 points behind it. The American team broke records. It was successful also in the longer races in which formerly the English have been our superiors. All this is gratifying to our pride.

But with this feeling of pride in the winners must go a keen regret that there was ill feeling and misunderstanding which brought the Olympic games this year down from a friendly and sportsmanlike rivalry to a much lower plane.

The occasion afforded many unusual spectacles, and there were great feats of skill and strength and endurance. Yet the really educative value or high benefit of the contests of any sort would be hard to find. What we want for the building up of physical efficiency is such an attitude toward athletics and exercise — such a system of life and training — as will make suppleness and grace and strength and health and endurance the aim of everybody, a necessary part of life.

It is better for any nation that a dozen of its young women who will bear children should be perfect women in health and strength and grace than that a dozen young men should win prizes in a dozen violent spectacular contests. It would be better yet that practically all the young men and young women of any nation should be physically trained in normal ways. In fact this is far more important than that they should all be taught to read, to write, and to cipher. Do great athletic events and international contests bring us any nearer to understanding this plain fact — that a good body is far more important for any human being than any quantity of facts drilled into the mind? Having made sure that the body is good and will be kept so, what we now call "education" might then begin and be tolerated even in many of its present forms. But any people that had good bodies would not long need to tolerate much that we now do in the name of "training the mind." It would fall away of its own accord in any society of such physical efficiency as to give the brain and the belly a fair chance for clear thinking and perfect digestion.

A MENDING OF CORPORATION MANNERS

NOT long ago the Pennsylvania Railroad Company ordered that every accident and the name of the man who caused it or permitted it should be posted on its bulletin boards; a corresponding rule was even earlier issued by the Union Pacific Railroad Company; and the president of the street-railway system in New York has given orders that the news of every accident of consequence be promptly given to the newspapers. Perhaps other roads have followed these good examples.

These orders seem little things, but a very important principle is involved in them. You cannot find a man who has not had the exasperating experience of the train stopping, and of brakemen and conductor remaining silent or evasive under all questioning. Sometimes a frank railroad employee will say that he is not allowed to tell what has happened. This is no doubt to a thoughtful man only a personal trifling annoyance, which he forgets as soon as the train starts. But it always leaves on the mind the thought of the railroad company as a secretive, remote, impersonal, and even deceptive thing. A number of such experiences has an effect on the public mind, and goes a good way toward making the railroad an object of popular distrust. It has had much to do with the feeling that a railroad company cares too little for the passenger, and has strengthened the popular conviction that it is conducted in ways that provoke and warrant suspicion.

A corporation can be courteous as an individual, and the courtesy of railroad officials

in many sorts of service to the public is admirable; and for this reason it has been a mistake to forbid them to make explanations of accidents and delays; and the new policy of publicity has a very far-reaching meaning. It is psychologically a very important mending of corporation manners.

"TIME FOR THE GRACIOUS OCCUPATIONS"

A REBOUND is coming from the crammed jumble of "child labor in the schools," which we have called education; and it is coming, of course, not through the discovery of any new thing nor by any "fad," but by the application of common sense and common industry and common honesty to the business of teaching.

There has, for instance, come to the desk on which this word of appreciation is written a little pamphlet about a school for boys that makes the usual "school-catalogue" look like tinsel or torture. To begin with, the whole thing is written in simple, good English. There is n't a sentence of pedagogical lingo in it; and the ordinary father of any extraordinary lad can understand it. The man who wrote it wrote it to tell what he does for boys — what his aims and methods are — without reference to other schools or school-catalogues or to what others do or to what he thinks parents think that he ought to do. He tells where the school is — on a tract of 200 acres, the highest portion of which is "the site of the simple school buildings and tents." There are no "halls" nor "dormitories," — no elaborate equipment. The climate "permits a genuine outdoor life." The boys wear "the simplest camp costume, and sleep in tents or directly in the open."

It is a life full of freedom, of exercise, of fresh air, but also full of suitable duties. The work consists "of the arts and accomplishments of life — bodily control and mastery," and (in the lower grades) "includes very little book work." The influences and instruction cover, among other things,

Reverence.
Manners.
Care of the Body.
Language: English and French.
Arts: Music, Drawing, Manual Work.
Nature Work: Gardening and Forestry.
Mastery of the Body in the Air: Walking, Running, Climbing, Jumping.
Mastery of the Body on and in the Water: Swimming, Diving, Boating.
Horsemanship: Riding and Driving.

The higher classes have but eight studies for four years — studies that are "at the foundation of all systematic culture; by so reducing their number, it is possible to gain concentration." They are English, French, German, Latin, History, Algebra, Plane Geometry, and Elementary Physics — all by the way that are required to enter any college, if a boy know them well.

The boys are divided into groups of from seven to ten, and each group is in the charge of a special master who takes the place of an elder brother, looking after their manners and morals and general welfare. Each group sits together at a table in the dining-room, and sleeps together in a big bungalow or tent or a cluster of tents. Good English, considerate manners, and clean conduct are required at all times. The boys work in the mornings at their occupations and studies, and for a part of the afternoon. The evenings are largely devoted to social life — music, games, story-telling, and reading aloud. The weekly outing allows an all-day excursion.

"Vulgarity or frivolousness will lead to prompt dismissal. To remain at the school, a boy must be mannerly and industrious, and from month to month must show a reasonable increase in skill and worth." It is an outdoor school and the studies have been reduced to a minimum to allow the greatest possible thoroughness and also "to leave time for the gracious occupations."

Of course the proof of a school is in its conduct and not in its plan only or mainly. But this plan brings to the training of a boy several large principles that our complicated education has often lost, such as these — the value of outdoor living, of riding, of walking, of story-telling, of social activity, of both the normally (not the abnormally) hardy and the "gracious" occupations — and of companionship with the teachers.

THE NEXT EXPOSITION, BAD TIMES OR GOOD

THE political campaign is not permitted to interfere with the industrial activity and the advertising enterprise of the Northwest. The secretary of the Alaska-Yukon-Pacific Exposition, to be opened at Seattle next July, writes that "all the buildings to be built by the Exposition corporation are so far advanced that they will be completed by February 1st — five months before the Exposition begins. The sod for the grounds has been growing for more than a year, and several

hundred thousand shrubs and trees are getting ready in a nursery for transplanting. "The grounds for beauty have never been equalled in the history of expositions, for nowhere else is there so superb a setting of water, woodland, and mountains."

The people of Seattle have subscribed for $800,000 of Exposition stock, most of which has already been paid for in full. The state has appropriated $1,000,000; California $100,000; Oregon $100,000; Pennsylvania $7,500; Missouri $10,000; Nebraska $15,000; and New York $75,000, and other states will act next winter. The Federal Government has appropriated $600,000 to pay for exhibits by Alaska, Hawaii, and the Philippine Islands.

The Exposition site includes 225 acres of the campus of the University of the State of Washington, and the Exposition will make permanent improvements for the University. The grounds, the water system, the sewer system, the park ornamentations, and most of the buildings are designed and built for permanent University occupation. The grounds have been laid out in conformity with the present University plans and the work will advance those plans perhaps twenty years.

ANNOUNCEMENTS

IN THE WORLD'S WORK for October the first installment of Mr. John D. Rockefeller's Reminiscences will appear.

In early numbers there will be published articles on the Bell Telephone Company, explaining the workings, the organization, and the methods of that great corporation — parallel to Mr. Keys's articles on the Standard Oil Company, another of which is yet to come.

There are other as interesting contributions in preparation. Mr. Edgar Allen Forbes, of the staff of THE WORLD'S WORK, has gone on a trip through North, West, and Central Africa, to take a year, and he will report and explain the call of this last of the unconquered continents to the white man.

Mr. B. L. Putnam Weale, a student of race-problems and race-conflicts in every part of the world, is preparing articles on "The World-Problem of the Future: the Question of Color." He will point out the relations and the dangers of the white, the yellow, and the black races to one another on every continent where they meet, and show how difficulties of this kind have been avoided or settled in the past. His is a report on race-conflicts the world over.

In the October number, Mr. Todd will continue his articles on airships with an exact explanation of the working of aëroplanes, and of fascinating new problems of air navigation, reporting the experiences of the successful aviators, the Wrights, Farman, Curtiss, and others. Mr. Forbes will have in that number "Uncle Sam and his Farmers," an article whose illustrations hint of plenty and prosperity.

An explanation of the condition and attitude of labor will begin with an article, by Mr. F. J. Dyer, on Mr. Gompers and his Federation and Labor in Politics — what part has it played?

THE CONSTANT CROP OF PROMOTERS' VICTIMS

THE WORLD'S WORK constantly receives letters telling how some poor man or woman has been induced to buy doubtful stocks, and faces the loss of the entire investment. Many of these letters come from country doctors and clergymen, and tell of cases that have come under their personal observation.

Very often the stories are pitiful enough. They all end with the question: "What can be done about it?" In ninety-nine cases out of a hundred nothing can be done. In the hundredth case there has been fraud on the part of some responsible agent, and a suit at law may recover the loss. But this chance is slight, for practically this form of piracy is safe, and nothing can be done to stop it.

The two "favored classes" of people in the lists of possible investors are the clergy and maiden ladies. There is hardly a "fake" industrial concern promoted in this country that does not send out to a list of the clergy a set letter, bought by the thousands from concerns that by long practice are experts in

preparing such literature, setting forth the claims of that particular company to the consideration of investors "of the most conservative and necessarily careful class, which you represent."

I had never been able to figure out just what profit there could be in this appeal by circular to the clergy, a class that usually has education, some knowledge of human nature, and very little money. But, since the Readers' Service of this magazine was established, I have come to understand, in some part, the reason why they are selected. Not only are the clergy themselves extremely likely to buy in small quantities, but the pitiful fact appears that, through the honest but misguided enthusiasm of preachers, the promoters reach hundreds of investors whom they could not otherwise reach. In small country towns and rural communities the clergyman is frequently a temporal as well as a spiritual guide, particularly to widows, orphans, and the helpless of both sexes.

And it is to such as these that the promoter looks for profits. If a man comes into the office of a lawyer, a banker, a merchant, or even an editor, and tries to sell stock that is "almost certain" to pay 100 per cent. per annum, he may find a listener but hardly a buyer. The promoter of a new invention, or of a mine, or of some wonderful process for making something out of nothing, knows perfectly well that he must reach the "little people," the men or the women with little in the world to lose, but with the hunger for money in their hearts. He must spread his net abroad, not set it in the sight of the wary and the wise. The way of the spreading may be of interest to some thousands of persons who appear to have been caught at times; and to many other thousands who have been coaxed, by skilful letters from men they never heard of, to buy this or that stock.

Any promoter of any company, good, bad, or indifferent, may go to any one of dozens of concerns in New York and buy a list of names and addresses of people who might happen to be interested in his proposition. These lists pass constantly from hand to hand. If you have ever bought stock from such sellers, you are a marked man. So long as you live in the same place, you will receive from time to time wonderful circulars from wonderful men with wonderful inventions, wonderful mines, wonderful processes that they wish to unfold to you.

Here are some paragraphs from a booklet issued by a promotion concern in New York, and intended, of course, for the perusal of the men who have something for sale, not for the perusal of the uninitiated.

"The man that buys stock in a new project, or in an unlisted enterprise, is a speculator rather than an investor — he has the gambling spirit in his blood, which accounts for the fact, for it is a fact, that lists of men who have previously bought into such propositions will buy into others. We have seen men who have incurred repeated losses by such purchases still continue to buy and buy. They are, by nature, susceptible to this class of appeal. This curious psychological fact makes lists of such men valuable, and lists comprised of other men valueless.

"We buy and sell investors' lists. As we are constantly purchasing fresh lists, and charge a fair price for those we sell, the names do not get "pounded" too much, although, as a matter of fact, we ourselves think it a decided advantage to approach a man who has received financial literature constantly. It educates him.

"To such an extent do we believe this that we have advised brokers to take certain lists and institute a thorough investment campaign with the people whose names appear thereon, keeping after them year after year.

"A man is a long time sometimes thinking of an investment or speculation, and every letter or booklet received on the subject is a 'jog' to his memory, and an incentive to him to act. We have seen a heavily 'worked' list produce very much better results than one that was almost fresh.

"The point is that the place to sell stocks is where, apparently, the strife for the buyer's patronage is hot. In London there is an increasing tendency of the various trades to group in one centre, jewellers in one street, tailors in another, etc. Fish gather where there are a hundred fishermen.

"This great truth is overlooked by brokers who want a list that has not been used. The possibilities of an investors' or speculators' list are never exhausted while the men on it are alive.

"However, we try, in deference to a prejudice on this subject, to keep our lists reasonably fresh, and abandon the use and sale of a list after twelve months have passed, being able to do this owing to the constant accumulation of fresh names and addresses."

This should be very interesting reading to the man who receives two or three letters a month from promoters and brokers who are handling various securities. That phrase, "Fish gather where there are a hundred fishermen," is eloquent. The average man certainly does not care to be "worked," "jogged," or "pounded" into separating himself from his

money, but it appears that processes such as these are the stock in trade of the successful promoter.

These are not secrets, save to the very innocent. Any man who has lived in touch with the business world for a very few years knows that lists of names are prepared daily, for all sorts of purposes. If a man needs a list of 10,000 men who have lost an arm, he can get it. In the cities, nearly everyone is "listed" for something or other. The point of present interest is the fact that regular lists of promising investors are daily sold by brokers in New York to promoters and to common stock-swindlers without the least regard to the interests of the people whose names are so retailed.

This is the fertile soil in which the ignoble plant of promotion has found its greatest growth. It is one thing to go to a business man with a business proposition. It is quite another thing to go to an aged maiden lady with no business training, and to sell her shares in some industrial gamble. This magazine unqualifiedly and without exception warns and advises its readers against the ever-increasing flood of pseudo-investment literature that is becoming a curse in the country.

Much has recently been heard concerning the evils of stock-market speculation. I believe that for every dollar lost by innocent people through speculation on the stock markets, a thousand dollars is stolen from the little hoards of the innocent and the poor by the promotion of companies either visionary or fraudulent. Some of these companies turn out well, and pay steady dividends to their stockholders. The vast majority of them, however, have a different history. Perhaps it is safe to say that 90 per cent. of the new industrial companies and 99 per cent. of the new mining prospects that are made to appeal to this class do not live to reach the dividend stage at all.

The normal fate of such companies seems to be bankruptcy. Things run along smoothly while the stock sales are going on. The company runs its plants. After a little time, the stockholders receive a notice from the secretary of the company to the effect that the company has been obliged to borrow money for working capital from time to time, that the debt is about to mature, and that something must be done immediately. The letter usually encloses a notice of a special meeting to be held at some date. You are invited to attend, or to sign the enclosed "proxy," which entitles somebody else to vote in your place.

Normally a fight results. Some stockholders, unwilling longer to trust themselves to the tender mercies of the management, demand the list of stockholders, obtain it, and try to get the support of the stockholders against the management. The affair becomes a scramble to save the pieces. The small stockholder, unwilling to risk any more money, is forced to take his loss. What remains of the company passes into the hands of its creditors, or is sold to some other concern.

All these things are done by legal process. Unless there has been fraud, forgery, perjury, or some other crime in the chain of events, the stockholder has no redress. Even if some crime has been committed, almost any adviser will advise the holder of only a few hundred dollars' worth of the stock not to sue. It will usually cost five dollars to collect one.

The remedy is plain. No one should buy stocks of this class except as an out-and-out gamble. If a man feels able to lose a few hundreds of dollars, it may be all right to stake it in some of the mines or industrials so wonderfully advertised, for a very small percentage of them will doubtless prove fortune makers. The average investor has no right to have anything whatever to do with them. C. M. K.

THE NEED FOR BETTER BUILDING

NO OTHER nation suffers from fire as does the United States. The fire loss in this country has reached $215,000,000 in a normal year, a sum equal almost to our Customs revenues, greater than the dividends paid by all the railroads, greater than the postal receipts, greater than the production of gold or of silver. In "abnormal" years we have far exceeded that amount, as in the years of the Baltimore fire and of the

San Francisco disaster, that of itself represented a fire damage of nearly $315,000,000. Did all the world indulge in such orgies of fire as we do, the annual loss would be somewhere in the neighborhood of $3,600,000,000, while, as a matter of fact, the total fire losses are estimated at but $600,000,000. Indeed, we destroy more property by fire than do any four nations in Europe. Our fire tax equals $2.30 per capita per year, while in Europe the same tax is less than 33 cents. The city of Boston has had fires aggregating over $5,000,000 in the past few months; Rome, a city of almost equal size, feels terribly aggrieved when her fires total more than $50,000 a year. Here we complacently figure up totals and increase our insurance, instead of building better, and think that a fire is hardly worthy of attention that has not reached the million mark. There was recently a fire at Frederickstad, Norway, that destroyed twenty-three buildings, some $560,000, and the European papers have not yet gotten over their editorial lamentations thereat. In all of 1907 there were but thirty-five fires in Great Britain that averaged over $50,000 damage and not one that exceeded $400,000 destruction. The total of the thirty-five fires aggregated $3,785,000. With us, a city really feels that it has not been properly treated if it does not have at least one $1,000,000 fire a year.

While talking in figures, it may be well to mention that actual combustion is not the only item of our fire cost. We spend in the maintenance of fire departments, installation of high water-pressure systems, and those curative agencies that have become necessary by reason of our poor construction, nearly $300,000,000 a year. More than that, the very latest insurance reports indicate that all the companies, stock and mutual, wrote approximately sufficient insurance in 1907 to make a total of nearly $300,000,000 in premiums, and this can be termed an additional cost of fire. True, a portion of that last sum (the insurance companies put it at sixty cents on the dollar) was refunded in the form of paid losses. Allowing for that, we find that the total cost of fire, incidentals and all, in a normal year means just about $600,000,000. This figure is particularly impressive when we note that the greatest building year that we have ever had in our history shows a record of about $615,000,000 expended in new buildings and repairs. In January, 1908, the total of new building and repairs equalled $16,000,000: during the same month, fire destroyed $24,000,000 worth of property. We think that we are growing tremendously and are doing wonders in the way of building, but these figures would indicate that we are adding new buildings at just about the same ratio at which we are destroying them. Admitting that very little can be done to the old buildings, it is somewhat illuminating to realize that one-quarter of the sum expended for insurance in the year 1907 would have made fireproof every building erected in that period.

It is true that no other nation builds as convenient and generally attractive buildings as we do, and that nowhere else has the art of fireproof construction been so highly developed. The trouble is that we have illustrated that art in distressingly few buildings. In round numbers, there are perhaps 12,000,000 buildings in the country — representing a value of something like $14,600,000,000 — but of that number only 8,000 have been constructed so that by any stretch of the imagination can they be called fireproof. Even of that number there are really but six or seven structures in the entire land that *are* positively fireproof in the exact sense of the term. Yet to make a new building fireproof is comparatively easy, and costs, initially, not more than 10 per cent. more than does an ordinary construction, while after a life of four or five years it has become, actually as well as sentimentally, an economy.

New York has 3,000 firemen, 11,000 horses, and 160 steam-fire engines, and the department responds to about twenty-six alarms a day. In spite of its wonderful efficiency, the city suffers something like $7,000,000 loss a year. London has about 3,843 fires a year and Berlin, 3,000, with a loss of perhaps $170,000. Rome would average 270 fires a year; Milan, 786; Florence, 160, and so on down the list with no one European city equalling, pro rata of population, one-fifth of the fire loss or the cost of maintenance of fire departments that we have in the cities of this country.

It may be said that fireproof construction is the one and only means of fire-prevention. The term "fireproof" is used altogether too glibly. A man puts a tin roof upon his wooden building or a concrete floor in his cellar and immediately, by some occult process, that becomes a "fireproof" building; and he and his neighbors are grievously surprised if the house eventually burns to the ground. The

science is exact and all its application simple, but no halfway measures are of much value.

As a chain is only so strong as its weakest link, so is a building. Everything must be done right, for one little wrong is quite sufficient to vitiate all that has been done correctly. It is distressing indeed to see hundreds of thousands of dollars put into some great building, substantially built, and with all sorts of costly provisions made against fire, but with some foolish little detail missing, exposed windows on an alley unprotected, or something as silly, that jeopardizes that building and all that is in it. Architects are largely to blame for this. They seemingly have not seen and appreciated the necessity there is to do everything well. They are too busy to give adequate time and consideration to the permanency and lasting qualities of the structure they are evolving. But even the layman ought to know and could easily learn what really constitutes fireproof construction. The structure in all its parts and its decoration and finish should be of non-combustible and preferably non-damageable materials; its elevators and stairs should be enclosed; its windows and doors should be protected from external attack, and there should be ample equipment and due diligence exercised to prevent the spread of an incipient fire in the contents of that building.

If the layman cares to go more into detail, he must have seen, and therefore knows, that many incombustible building materials are, nevertheless, greatly damaged by heat. Steel will distort into all manner of shapes; granite and marble and sandstone and limestone will go to pieces. Therefore will he, if sensible, eschew those things, or so carefully protect steel, for instance, with brick or other non-heat-conducting material, that the steel can never be exposed to fire. He will use brick and terra-cotta externally, not only because they are cheaper than stone but because, in case of adjacent fires, his bill for damages will be the minimum; he will see that his windows are of wire glass in incombustible sash and that fireproof doors, self-closing doors at that, are in his stair and elevator enclosures; he will use light and wonderfully fire-resisting tile-floor arches and partitions; he will see to it that the decorations and finish of his building are of marble and metal and plaster or, cheaper still and more effective, color upon plain surfaces instead of elaborate wooden wainscoting and paneled ceilings, etc.

Americans, as a rule, build only as well as they are compelled to. It therefore lies with the community, and it is the duty of the community, to safeguard the life and property of its citizens, even though as individuals they may not be willing voluntarily to make that move. The strictest kind of building regulations are absolutely necessary. The building speculator will raise a protest, but so protests the saloon-keeper every time high license or prohibition is mentioned. However, the community might also offer an inducement to its people to do better. Why should not the taxes be so adjusted that the owner of a first-class building, that requires the minimum of municipal fire-protection, be compelled to pay but the minimum rate, while the owner of the fire-trap, for whose benefit all this fire department and other protection expense is incurred, should be made to pay for that protection by means of a maximum rate of tax? Some states are doing it already and all our architects and builders should be made to pass an examination and receive a license before practising or plying their calling in any city. Then, if anyone should infract the building regulations, revoke his license. Further, let all building superintendents be skilled and licensed officers of the city, paid by the owners of buildings but responsible to the city for the proper construction of the buildings under their charge. And, last but not least, let us make it the duty of the building department in every city conspicuously to label all buildings in the congested districts and all buildings everywhere of a semi-public nature. Suppose they be marked "fireproof," "ordinary," "dangerous." It will, in the first place, wake up the departments to considerable alertness; it will prevent impudent or ignorant owners from exploiting fire-traps as "absolutely fireproof" hotels, for instance; and besides, if a man about to build realizes that his theatre or office-building or whatever it may be will, if built a certain way, be labeled "dangerous," he will think it over and do better, even though the law may not compel him to do so in that particular district.

The prospect of the complete devastation of our forests is bad, but the contemplation of the danger one runs of being one of the 7,000 people burned every year, or of losing every penny in a fire, is worse, and it behooves all thinking men to join hands in this movement

for better construction of buildings. The individual will not act without being compelled to by the community; and again the community will not pass the requisite laws unless urged to by the individuals, at least those who think and have the welfare of the whole enough at heart to take the trouble to express themselves and to add force to the "urging" that is now being done in every city in the country. F. W. F.

LOWELL'S "GOVERNMENT OF ENGLAND"

THE Government of England," by A. Lawrence Lowell, Professor of the Science of Government in Harvard University, has conveniently been compared with Mr. Bryce's "American Commonwealth;" for he, as a sympathetic American student, has done for England a task similar to the task that Mr. Bryce, as a sympathetic Englishman, did for the United States. He gives to the American reader the best presentation yet made in popular language of the workings of the British government, and much pertinent comment not only on the development of the system itself but to some degree also on its possibilities. For many years his explanation of the intricacies of English politics will in all probability be unsurpassed.

In these two volumes of eleven hundred pages, he explains the English government as it works to-day, in both national and local ways. To this purpose he holds, as the needle points to the north. He sets forth, for the benefit of such as are either uninformed or insufficiently informed, the leading principles of British rule, and takes pains to write always plainly. From the opening chapter, an introductory note on the English constitution, to the final analysis of the English law courts, the reader is conducted, so to speak, through a great and imposing edifice by an experienced guide. The course is along the main corridors; yet there is no undue haste about the progress, and by the very holding to the essential characteristics of the architectural scheme a sound basis is laid for any future investigation.

The English political system has grown up "by a continual series of adaptations to existing needs," and so has become, on the whole, more consistent with itself, more harmonious in the operation of its parts, than any other government. It is, indeed, a living organism that is here treated — an organism with quaint survivals, but, by and large, intensely vital and singularly responsive to varying needs.

The plan of the work, after the initial survey of the constitution, naturally calls first for a review of the diminishing part played by the Crown. Joined to this is a synopsis of the relations between the Crown and the Cabinet, this section being followed by chapters on the Cabinet and the Ministers, the Executive Departments, the Treasury, and miscellaneous offices, with a consideration of the permanent civil service and the Ministers and the civil service. At this point the reader is prepared for the chapters on the House of Commons, the Commons and the Cabinet, the House of Lords and various related topics.

All these chapters constitute that division of the book bearing on the central government of England. Next comes an extremely satisfactory study of the English party system, the fourteen chapters covering, among other subjects, "Party and the Parliamentary System," "Party Organization in Parliament," "The Rise and Fall of the Caucus — The Liberals and the Conservatives," "The Strength of Party Ties," "Local Political Organizations," and "The Existing Parties." Other divisions are devoted to local government, education, the Church, the Empire, and the law courts, the second volume being brought to a conclusion with five chapters under the general head, "Reflections."

Of these miscellaneous divisions, while each has a special meaning, that of most significance to Americans is "The Empire," leading up to the desire for closer union expressed in the idea of imperial federation. Here, as elsewhere, Mr. Lowell shows in a broad way the tasks which increasingly tax the powers of British statesmanship.

In the final survey, attention is directed especially to society in England, with reference to the confluence of aristocracy and democracy and to the notable growth of paternalism. Paternal legislation is referred to as "perhaps even grandmotherly"; and he enters in

brief but illuminating criticism of the modern tendency to magnify efficiency as compared with abstract principles. Something of what he says may be quoted as applicable to the situation on this side of the water, as well as on the other. The tendency to magnify efficiency, he remarks —

"is well, but like all good things it may be overdone. Man has wrought such marvels by his growing control over the forces of nature that he tends to look on all evils as curable and curable quickly. The modern world is in a hurry. Not only does it measure the wisdom of a course of action by the results, but it wants to see those results. It demands of men and of policies rapid success. Conversely, it is not content, when something is wrong, to see whether matters will not right themselves in the natural course of events, or even to wait until the subject has been thoroughly studied. It seeks an immediate remedy, and often grasps at the first plausible suggestion. Nor does it look far ahead for the signs of future trouble, because it is busy; its hands are filled by the work of the day. In short, the world is prone to deal only with the things that are pressing and obvious, and therefore to treat symptoms rather than causes."

This extract gives a hint of the suggestiveness of a work which broadens one's knowledge and healthfully stimulates thought. But, like Mr. Bryce's book, it is informative rather than inspiring, the work of a scholar but not of a man of unusual imagination, useful without being inspiring, yet a satisfactory book on one of the greatest subjects in the world.

WHERE THE HIGH SCHOOL FAILS

HOW COLLEGE INFLUENCES AND THE STRIVING TO PRODUCE THE SUPERHUMAN HAVE HURT SECONDARY EDUCATION

BY

WILLIAM McANDREW

THE high schools are under fire just now, subjected to a criticism more continuous and violent than in the seventies, when the courts were called upon to decide whether high school instruction was practical and necessary for the public at large. Supreme Court Justice Cooley then declared in a famous ruling that education (not merely rudimentary instruction, but in an enlarged sense) was an important practical advantage to be supplied to rich and poor alike, thus fixing the democratic function of such schools. In commenting upon this ruling, Chancellor Payne of the University of Tennessee said that while "the college is rather a mediæval institution, reflecting the opinions, the culture, and the needs of an obsolete state of society, our high schools must respond quite fully to the exigencies of modern life and thought." It is now nearly as difficult to find persons who will deny this principle of secondary education as it is to find high schools that really carry it out. The high school of to-day is characterized as antiquated, gone to seed, narrow, illiberal, *exclusive*, and aristocratic. This is the identical criticism of Samuel Adams's time. What are the reasons for the persistence of this charge?

For one thing, there is the college influence. That is aristocratic. "The function of the college is to produce a small and highly trained patriciate — an aristocracy, if you will — men of high breeding and supreme attainments who will rise above the level of the commonplace," declares your college professor. The college man, he says, should be one of a special class. To be a college man is to be a distinct type.

As the American high school is historically a college adjunct and not a superstructure built on the common schools, its spirit is naturally this aristocratic college spirit. The teachers are rarely secured by promotion from the elementary schools; they are college students fresh from the university atmosphere. The course of study is not a continuation of the common-school course; it comes down like a stalactite from above. The questions of high-school management have not been, "What are the most useful ways in which these young people can spend their school time?" but, "What do the college examinations require?"

These policies prevent the adaptation of high schools to the many. They were fair enough in the beginning. When the high schools were established as fitting schools, their business was to fit. You could choose them and pay, or leave them and not pay. Your tuition was an initiation fee into a "small and highly trained patriciate — an aristocracy, if you will." It was none of the public's business what the course of study was. But when the communities took over these schools and paid their expenses from the public funds and by the decisions of the courts declared the rights of all the children to attend, the old defenses of a special education for the few had no foundation in right or reason. That educators continue to conduct public high schools in accordance with those traditions is the most frequent charge by the lay press just now. The apologies uttered by the high-school masters for clinging to obsolete practises constitute a well-known cycle of educational cant.

WHO CAN JUDGE FITNESS?

One of the hardest worked phrases of this scholastic parlance is "the survival of the fittest." So accustomed are we high-school folks to this idea that it never occurs to us to question whether it may not be wrong to apply it to high-school students at all. It may be the law of plant life, of animals in the wild state, of business, and of war; but to religion, government, philanthropy, and education it is inapplicable. In our own day we have seen the elementary schools repudiate it. The high school and college are the only educational grades that assume as a high duty the exclusion of the unfit. Fancy Christ, or Paul, or Froebel, or Howard, or Wesley, or Wilberforce, or Lincoln confronted with this tenet so common in high-school circles. When I graduated from the high school, one of a class of five, the Commencement orator told us that we were the wheat from which the chaff had been winnowed away. Some of this chaff run that town to-day, and do it well. Last week I heard, at another graduating exercise, a speaker compliment a dozen boys because they were the remnants of two hundred who began with them. At a recent meeting of the school board of Corning, N. Y., it was decided that if parents of children who are found defective in sight and hearing did not immediately take steps to remedy the trouble, the students would be expelled from school. We cannot easily get rid of the idea that education is a privilege for the few. Exclusion from school either by formal act or by indirection is still regarded as an ordinary exercise of the high-school master's prerogative.

The devices to exclude the unfit are many and familiar. It is not uncommon to hear the authorities assert that entrance to high school should be determined by an examination set to high-school standards. In may communities a boy may be able enough to be counted a graduate of a grammar school but not to be admitted to a high school. Even in our largest high schools, with an abundance of teachers and the possibility of variety of service, we have not reached a point where we are willing to adjust that service to the ability of ordinary children of thirteen years of age.

Our pace is set for superior children. A favorite cant expression of ours is "upholding the standard." What standard? The grade that those who have completed the elementary school can maintain? Not at all. The president of Harvard says that "we propose to uphold the standard and to uplift the secondary school by our admission examinations"; on the next day the principal of Phillips Academy, Andover, says that "the boy of average ability finds himself taxed beyond his power." For forty years, at least, we have been following this absurd practice of the unattainable standard. I was never able to reach it in high school or college. I have asked hundreds of college men about their experience and never met one who said that he had been given work that he could do well. We set the mark so high that we don't expect it to be hit, but we will accept 60 per cent. of what we ask. This practice of discounting complete work is universal in colleges and in high schools. If we were not so accustomed to it, we would regard it as the device of a diseased mind. It is a system of educating men and women not to desire the best. The best is not required. We teach them to be satisfied with indifferent success.

Another favorite theory of our aristocracy is that we high school people train the leaders and should therefore be permitted to take money from all the taxpayers for the education of a few. The men whose sons drop out of high schools do not rally enthusiastically to this war-cry. Even if it were true, the leadership theory does n't fit into democracy very well. But is it true that we make leaders? Why is it that Beecher was rated by the

leadership experts thirty-fourth in his class, while number one became an inconsequential barber? Why is it that Linnæus's teacher said that he was unfit; Darwin's, that he was dull; Seward's, that he was stupid; Swift's, that he had no promise; Wordsworth's, that he was a disappointment; Sheridan's, that he was a defective; Humboldt's, that he lacked ordinary intelligence; Heine's, that he was a dunce; Hegel's, that he was only middling; Byron's, that he belonged at the tail; Huxley's, that he was notably deficient; Schiller's that he showed no proficiency; Lowell's, that he was negligent; Goldsmith's, that he could not learn; Wagner's, that he was a mental sloven; Goethe's, that he was unsatisfactory; Emerson's, that he was hopeless; Pasteur's, that he was only average; Thackeray's, that he was undistinguished; Gladstone's, that he had no unusual ability; Watt's, that he lacked the qualities of success; Ibsen's, that he belonged in the lowest grade; Curie's, that he was too stupid for school? Mr. E. J. Swift, in his book on "Mind in the Making," gives thirty pages of eminent leaders who were dubbed failures by their teachers.

HONOR GRADUATES DO NOT ALWAYS LEAD

I do not understand that it has been proven that those who excel in our present high-school courses become leaders in any larger proportion than those who do not. In the two towns in which I have lived sufficiently long to observe who the leaders are among the men and women, I do not find that the high-raters or even the ordinary high-school graduates outnumber the non-graduates in leadership. This is remarkable because it has been the fashion for forty years for the children of "the best people" to attend the public high school in those towns. The leadership theory lacks support in that the managers of high schools omit to teach leadership. In order to lead, must not one be inspired with a consideration for those who are to be led? The yearly abandonment of so many high school students who withdraw from school makes a sorry lesson in leadership for those who remain. All leadership that I ever studied has a great deal of coaxing and winsomeness in it, whether manly or womanly. One could more easily learn driving than leading in high schools. If the high schools are teaching leadership, is it not in those parts of the boy's doings — his games and his clubs — which are not our chief business at all?

Another piece of cant we high-school people utter is prattle about a deep, a broad, and an accurate scholarship — as if we had it and our students were getting it from the college-made curriculum on which they are fed. This is one of our most sacred ideas. Our faith in this ideal is as dear as a good man's devotion to his mother. But if you put by your emotion and make a search for this scholarship, where is it? There was some in the teaching given James Freeman Clarke and the children with him, but the standard high-school curriculum to-day forbids the exercise of diversity, novelty, or enthusiasm. Without enthusiasm how are you going to have depth or breadth of scholarship? Only a man who is a product of our education would call by the name of scholarship the paradigms, grammatical rules, and lifeless drill that constitute so much of high-school courses now. To call it scholarship is cant of the most flagrant stripe.

These ideas — that the high school should continue to suckle at the college teat; that its purposes should reflect the aims of the university; that it should exclude the unfit; that maintaining high standards is better than educating the dull and the ordinary; that its business is to train the leaders and not the rank and file; that it is especially concerned with scholarship — seem to me the persistence of aristocratic ideas that were legally nullified when the courts established the right of the communities to tax all the people to maintain secondary education. These schools should be like the rivers and the roads, not maintained for private yachts and automobiles exclusively, but even for oarsmen and pedestrians. All the children who have finished the elementary schools should determine the studies and the management of the high schools. They should not be ignored in favor of a traditional, mediæval system. A living person, not a curriculum, should be the determining factor. Judge Draper believes that American high-school procedure is "wasting the lives of the children" and that "there is a sad lack of definite aim and purpose about it all, and that our educational plans do not rationally meet our conditions." If those were the words of an enemy of higher education they would be serious; but as the deliberate utterance of an ex-superintendent, a recent University president, and the present head of the educational system of New York state, including 665 public high schools, they are singularly

momentous and solemn. And they are not unique. They merely express more directly and forcibly what is current public opinion.

It would seem that we are again at a period when public opinion feels about us as Governor Adams felt regarding the academies a hundred years ago: that "our learning, instruction, and social feelings belong to the few." If this is correct, if it is a true diagnosis to attribute the snobbery of learning to these much berated institutions of ours, then the prescription is not very hard to write.

THE WAY OUT

The high school should abandon its idea of being an "institution" with traditions, cults, doctrines, and holier-than-thou proclamations; it should get down to a humble endeavor to serve all children. It should cease maintaining that its mental food, cut and dried by experts of unproved fitness for life here and now, is the only proper nourishment for growing boys and girls. It should study the real world about us and try to reproduce the best of it under the best conditions in the class room. There are thousands of teachers able and anxious to do this if the debilitating bonds of organization, uniformity, and system, which have been perfected by education in the past generation, be relaxed.

We see, now, an almost universal discontent with high-school education, simmering in the newspapers, in civic clubs, and among the laymen on boards of education. You never heard such frequent repetition of the old dictum that the schools belong to the people. Are the high-school men going to uphold "the aristocracy of learning," to declaim about the "maintenance of standards," "the survival of the fittest," "the training of leaders," and "the best interests of the school" (which means the master)? If so, these agitators will force from without their new reforms, with all the old familiar spreading of the notion that school teachers are opposed to progress, unable to fit themselves to circumstances, and in general worthy of contempt. If, on the other hand, the high-school men are wise, they will admit that times have changed since education was standardized; that all the children of all the people are worth some kind of training up to sixteen or eighteen years of age; and that no one in the world is more desirous than the high-school masters of serving those children with any kind of training that public sentiment desires to experiment with.

OUR GOVERNMENT'S WIDESPREAD SOCIALISTIC ACTIVITIES

BOTH THE NATION AND THE CITIES ARE MAKING THE MOST GIGANTIC STRIDES IN CONDUCTING PUBLIC UTILITIES

BY

JOHN MARTIN

[*Mr. Martin uses the word socialism in its broad sense to denote a wide range of activities beyond those that pertain to the individual*—THE EDITORS.]

DEMOCRACY in this country has acted socialistically and communistically to a degree which few Americans realize. From early days the individual liberty of the poor man to go without roads, to keep his children from school, to poison the streams with typhoid germs, to carry a gun and administer his own justice, or to sell liquor has been restricted for the common good by methods which are socialistic. Gradually the practical man, heedless of theories, faced by new problems, has adopted in America more and more of the socialistic method until to-day it is a most important factor in local, state, and national life.

Besides our international relations, the army, the navy, and courts of justice, the National Government now conducts the post-office, coinage, regulation of the currency and note-issue, ship-building, ship-repairing,

and its own banking. It lights the coast and deepens harbors and rivers with so much national benefit that a strong movement is on foot for the expenditure of hundreds of millions in making a waterway from the Gulf of Mexico to the Great Lakes, and a still-water route on the Atlantic coast. Recently private contractors broke down in dredging the new channel past Sandy Hook in New York Harbor. But the Government, reckless of the musty proofs that it could not possibly manage any business enterprise, went ahead with the work itself; and, before the estimated time had elasped, ocean liners traversed the channel. The National Government, furthermore, carries on and publishes its own researches in geology, meteorology, statistics, zoölogy, and geography. Every one of these functions, including those of the army, navy, and courts of justice, was in some countries at one time left to private enterprise and was financed by individual investments.

In the states and cities, the making, sweeping, lighting, and repairing of streets, roads, and bridges, sewerage systems in all their complexity, museums, parks, art galleries, libraries, concert halls, markets, fire engines, ferries, public baths, harbors, piers, wharves, docks, hospitals, dispensaries, schools, and universities, have all been brought under collective management. New York state is enlarging the Erie Canal at the cost of $101,000,000, chiefly at the behest of business men of New York City and Buffalo, while Illinois is considering a similar scheme for connecting Lake Michigan with the Mississippi, and for recouping the cost out of the water-power developed.

In addition to direct supersession of private enterprise, some states now register, inspect, and control many industrial functions; in addition to births, marriages, deaths, and electors, they register lawyers, notaries, newspaper proprietors, brewers, bankers, captains, mates, doctors, cabmen, hawkers, pawnbrokers, distillers, nurses, game-dealers, insurance companies, friendly societies, endowed charities, corporations, lands, houses, deeds, dogs, pamphlets, newspapers, trademarks, patents, lodging houses, saloons, theatres, music halls, places of worship, schools, and dancing rooms. Nor is this registration a mere form. Many of the foregoing are also inspected and criticized, as are steam railroads, street railways, ships, mines, factories, canal boats, public conveyances, fisheries, slaughter-houses, dairies, milk-shops, bakeries, domestic workshops, gas metres, explosive works, and lodging houses. In some states, for many of the larger industrial operations, there are prescribed the age of the worker, the hours of work, the amount of air, light, heat, lavatory accommodation, holidays, and meal times; where, when, and how wages shall be paid; how machinery, mines and quarries shall be fenced and guarded. On every side the individual capitalist and the corporation are being registered, inspected, controlled, preparatory to being eventually superseded by the community.

SOCIALISM FOR THE FARMER

In few of our larger activities are socialistic methods more in evidence than in the industries related to agriculture. The farming class constitutes the largest body of voters in America, and industrially their work is the most important. For aiding them in their labors, a perfection of communism has been attained of which few Americans are aware. Whatever puzzling emergency confronts the farmer, he can summon expert aid to give him all that science and experience can furnish to enable him to meet it. The National Department of Agriculture, assisted by the State Department, stands ready to show him what crops to grow and how to grow them, what animals to breed and how to breed and tend them, what trees to plant and how to care for them, how to produce the best butter and cheese and the way to market them. This paternalistic department is responsible for the introduction into this country of sorghum, a crop now worth $40,000,000 a year; Durum wheat, worth $10,000,000 annually; alfalfa, one of our most important crops; the navel orange, worth many breakfast foods; Japanese rice and bamboo; the Corsican citron; the Indian mango; the Bohemian horse-radish; the German brew barleys; Spanish almonds; French prunes; Chinese mustard, and Egyptian cotton. In three years, four thousand novelties have been brought to this unsuspecting land by a socialistic department. During last year, laboratories were established at Baltimore and at New Orleans for the purpose of examining and reporting upon the condition of any consignment of seed or grain, and an agent

will be stationed at foreign ports to examine cargoes on their arrival from this country. Also outside of the United States exploration work is carried on. This has recently resulted in the introduction of a seedless hardy persimmon, a hardy wild apricot, a new hardy peach, soft-shelled walnuts, varieties of Chinese grapes, and edible fruited hawthorne, and edible kernelled apricots — to mention only a few aliens which are being naturalized.

The best known and perhaps the most valuable work which the Departments of Agriculture, federal and state, have done, is in overcoming the destructive pests and diseases which are constantly threatening our plants and trees. The ravages of the boll-weevil in the cotton of the South have been materially lessened by the recommended use of early-maturing, short-season varieties. Iowa in 1903 was alarmed by the yearly falling off in its corn crop to figures far below normal. Professor Holden, of the State Bureau, by means of exhaustive investigations, traced the evil to inferior seed; and careful selection of seed-corn soon restored the normal yield. The eradication of the little-peach disease in Michigan and New York and the peach-blight in California, the checking of bitter-rot in the apple, and the brown-rot diseases of peaches and other stone-fruits are but a few of the countless achievements effected along these lines.

Not many states but have felt the beneficent results of the work of the department's representatives. Dr. Knapp brought great prosperity to certain parts of Louisiana and Texas through a new kind of rice farming which he developed. Professor Bolley has virtually eradicated oat-smut in Wisconsin, a pest which was costing that state millions of dollars a year. Professor Babcock discovered a simple appliance for gauging accurately the richness of milk, which has been invaluable in putting the dairy upon a sound economic basis. With a true socialistic spirit, Professor Babcock refused to have this test patented, so it remained only another of the aids which a communistic department has given free to the American farmer.

SOCIALISTIC RECLAMATION WORK

In the great semi-arid regions of the West, where the farmer is faced by the necessity of diverting water from the streams in order to irrigate his fields, water rights are of equal importance with land claims. During the early days, individualistic competition for water rights was the rule, but this practice was so fruitful of quarrels and lawsuits, and so altogether unsatisfactory, that state after state adopted collectivist principles in determining water distribution.

Colorado was the pioneer state in providing for the distribution of water by public officials, the state engineer being the head of the system. The state is divided into districts, each watered by its own streams. State officials measure the stream, gauge the supply, and act as an earthly providence to the farmers. The commissioner of a district receives each morning by telephone a statement of the river under his control, and is then prepared to go over the stream, regulating the headgates of the ditches as may be necessary and giving orders to the ditch managers.

Wyoming and Nebraska maintain a similar system for the control and apportionment of water rights. Since 1903, the state engineer of Idaho has had supervision over the acquirement of rights, and in the same year Utah put into use a complete scheme for the control of the waters of the state, their measurement, apportionment, and appropriation. North and South Dakota followed suit in 1905, declaring all water from sources not navigable to be the property of the state. About the same time the territorial engineer of Oklahoma was authorized to refuse applications for water rights upon sufficient grounds.

In these Western states, it is required that the plans of any company which proposes to construct large irrigation works must be sanctioned by the state engineer of the irrigation board, and all expenditures approved. At every stage, the cost is corrected in the interest of the farmers, who will be required, in taking up a perpetual water right, to repay the corporation whatever amount they have expended in nine annual installments, plus interest at 6 per cent. With such supervision and minimizing of profits, private capital has not been eager to undertake the task, and little by little the essential principles of Americanized socialism have been pressed into use, and the powers of government have been invoked to make the desert available to man. The Reclamation Act, passed in 1902, provided for the collective construction on an unprecedented scale of vast engineering works for the reclamation of desert lands. As a

result of this Act, the arid regions of the West have been transformed. The Roosevelt Dam now being built in Arizona will create a lake twenty-five miles long, and will bring into cultivation 200,000 acres of land. The Government has itself manufactured the cement and sawed the timber used in its construction. In Wyoming the highest dam in the world is in course of erection, and in Colorado a river is being diverted by means of a six-mile tunnel through a mountain of solid rock. The mammoth Laguna Dam, which controls the Colorado River; a huge earth dam in South Dakota, with a ditch 140 miles long, the size of a ship canal; a unique system of pumps on floating barges in North Dakota, which lift water directly from the Missouri River — these are but a few notable features of the work now in progress.

Up to the beginning of last year the completed works included enough canals to stretch from Washington to Omaha — some of them carrying whole rivers — tunnels aggregating eleven miles in length, ninety-four large structures (such as dams), nearly four hundred miles of wagon road, over seven hundred miles of telephones, many cement and sawmills, and the topographic survey of an area greater than Massachusetts and Rhode Island. The Reclamation Service is operating nine locomotives and 223 cars, upon twenty-three miles of railroad, and five electric light plants which it constructed. As a result of this work, ten thousand people have taken up their residence in the desert.

The construction now under way will serve to irrigate 1,598,000 acres, and the projects planned will add 3,270,000 acres more. Of the projects already approved, the approximate total cost is $97,000,000. Yet so fertile is the irrigated soil that two crops will almost pay the total cost of the irrigation system. An accurate account is kept of all expenses from the time that an irrigation project is undertaken. When the work is completed, each acre irrigated is assessed a pro rata of the total cost, and this the settler must pay in ten annual installments, without interest. This money is returned to the Reclamation Fund to be used over again.

Before long, 600,000 farms, the homes for 3,000,000 people, will have been reclaimed from the desert. As town populations are more than double the population of their supporting farm districts, it is safe to say that 10,000,000 people will presently be occupying these reclaimed lands. The construction by a government of such a vast water system, to be sold piecemeal to thousands of farmers, and the continued ownership of the main works, with guaranteed water rights to each lessee and strict enforcement of regulations upon the coöperative associations of water users, constitutes perhaps the widest application of practical socialism on American soil.

SOCIALISM IN THE SWAMPS

Not content with this unparalleled achievement in the arid West, the Government has entered upon a campaign for the reclamation of swamp and overflowed lands upon similar principles. An Act authorizing this new undertaking has been introduced in Congress, and a National Drainage Congress has been held. The Department of Agriculture has made an investigation of the whole subject and reported most favorably upon it.

The project is gigantic. There are in the eastern portion of the United States 77,000,000 acres that can be reclaimed and made fit for cultivation by ordinary engineering skill. Were it possible to collect them into one body, it would make an empire as large as England, Ireland, Scotland, and Wales. It would cover the New England states, New York, and the northern half of New Jersey, and would provide homes for a host of people equal to the combined population of Sweden, Norway, and Denmark.

Since most of the undrained swamp land is of trifling value, each state will doubtless be obliged to acquire, by the exercise of the right of eminent domain, such land as it desires Federal aid in draining. Only in this way can the net value, which the drainage projects will add to the land, accrue to the whole state, and the subsidising of private landowners by the Federal Government be avoided.

SOCIALISM IN THE FOREST

Quite as interesting as Uncle Sam's projects to secure new advantages for his people, are his paternalistic efforts to conserve those natural resources which are threatened through individualistic exploitation. He owns and operates a forest estate of fabulous value, "in the interest of the whole people," as an official report phrases it. Embracing about 150,000,000 acres, it is larger than the combined areas of Great Britain, Ireland, Greece,

Switzerland, Belgium, Servia, Denmark, Costa Rica, and Iceland, or equal to the area of the whole of New England, New York, and West Virginia. By the application of successful business methods to the working of this estate, the gross receipts derived from it have been increased from $25,431 in 1902 to more than $1,000,000 in 1906. By protecting the forests against fire, by permitting the cutting of ripe timber under strict regulation, and by planting operations on an extensive scale, the yield of the forest is ever increased and the threatening lumber famine postponed. The communistic activities of the Forest Service are not confined to the management of the Government's forest reserves. It coöperates with various states of the Union in the study of their forest resources and the elaboration of plans for developing and protecting these resources. At present forestry is being applied upon a million acres of private woodland under plans prepared during the past four years by the Forest Service. During one year this active bureau has examined, in twenty-five different states, timber tracts aggregating 2,000,228 acres. It coöperates with railroads in investigating the present tie supply, the possibilities of planting trees for ties, and methods for prolonging the life of ties. Private lumbermen have been shown by the results of the bureau's studies how to economize the rapidly diminishing supply of timber, and how to increase the turpentine flow in pines.

Nine states have forest reservations. New York leads with a forest area of about a million and a half acres. Governor Hughes recommends its extension and the replanting of spruce and pine upon a large scale.

In 1906, a charge for grazing in the forests was first established, to succeed the policy of free grazing. This was a most important step in the preservation of our national resources. Its logical outcome is seen in several states, including Texas, Wyoming, and Washington, which have adopted a system of leasing state lands suitable for grazing. From this means alone Texas derived in 1902 a revenue of $457,656. The federal Public Lands Commission reported in favor of extending this leasing system to all the 300 million acres of public grazing land, which constitute one-fifth of the area of the United States. This recommendation is prompted by the abuses of the present pernicious system of free grazing, from which naturally and inevitably, overstocking results in the consequent ruin of millions of acres. The once free and open range of the West will soon be held in trust by a beneficent national government and managed in the interests of all the people — its owners — although the thriving cattle-kings demand to be let alone.

SOCIALISM IN OUR COLONIES

But it must not be supposed that Uncle Sam is manifesting strong socialistic tendencies merely in matters domestic. Abroad and in his colonial dependencies, he has been even more radical along the same lines, as is abundantly shown in the Philippines, Panama, and elsewhere. He has proved his ability to construct and operate telegraph, cable, telephone, railroad, and steamship lines with business efficiency. And by the maintenance of cold-storage plants, hospitals, etc., he has demonstrated his belief that he owes a debt of social service to his citizens outside the States.

The United States Government owns and operates one of the longest and most intricate commercial cable and telegraph systems in the world — the Washington-Alaskan system, which joins the cities of the United States and the world in general with the towns and cities of the Alaskan Coast, the Yukon valley, and the region around the Bering Straits. This Government cable would reach from Newfoundland to the Irish Coast, and the land lines would stretch from Washington to Mexico. The Federal Government built the northern part of this line through a wilderness, wild and trackless, and laid down the thousand miles of ocean cable between Sitka and Seattle more cheaply than any of the commercial cables were established by private capital. When this cable was ground in two by icebergs, the gap was bridged by a wireless system which is at present the only one of its kind, operated as a part of a telegraph system and engaged in commercial business. After three years of operation, this cable line is worth more than the United States paid for it; the business done over it for commercial firms amounts to $200,000 a year; the rates are lower than those charged by any private company; and no error has yet been charged in any of the multiform commercial codes used.

Neither arctic cold nor tropic heat can check Uncle Sam's activities. Amid the Alaskan snows he published daily press

bulletins containing the cable news from all parts of the world, and for his servants in torrid Manila he built a Philippine Simla. After exploring the mountains and discovering the site of Baguio, he staked out a township, sold the lots at auction, and expended the receipts in beautifying the resort.

Cable and telegraph lines have also been officially built and operated in the Philippines. One section was put through a piece of country so difficult to traverse that every pioneer lineman who made the round had to be carried to a hospital. At present, 6,322 miles of land lines and 1,437 miles of cable, besides twenty-four telephone systems, are operated in the Philippine Archipelago at rates which are fixed according to the postal system, irrespective of distances.

In Porto Rico, the Government is operating telegraph and telephone lines so profitably that a few months ago the price of telegrams was reduced. The smallest towns in the most remote part of the Islands are connected with telegraph stations by the telephone.

In the Philippines, every post-office is a postal savings-bank. Deposits, however, large or small, are received at these banks and may be withdrawn from any other Government bank. Not content with thus providing for the inhabitants, Uncle Sam, a foster-father to the Philippines, conducts in the Islands thirteen official slaughter-houses according to up-to-date sanitary methods, and controls a cold-storage industry in Manila which is an economic revelation. By selling distilled water and ice guaranteed to be pure, the Government adds greatly to its earnings. In 1906, the net profits from the ice works paid for the entire cost of the plant.

In Manila, Government tenements are rented to working men, and outside the city there are tenants on Government farms, and trading stores in many of the islands, besides Government sawmills and peripatetic libraries. The Government itself publishes a newspaper and a popular and scientific monthly magazine.

SOCIALISM IN THE CANAL ZONE

In the construction of the Panama Canal — a work unprecedented in magnitude and unequaled in difficulty — the people of the United States have again borrowed from socialism. This undertaking, including sanitation, the expenses of the zone government, and the re-equipment of the Panama railroad, will cost nearly three hundred million dollars, and its complete organization is socialistic. The directing board is appointed by the President of the United States, and its members are salaried by the nation and responsible to the nation. Its personnel is as follows: three officers of the Corps of Engineers of the United States Army; the Chief of the Bureau of Yards and Docks of the United States Navy; a medical officer of the army and two civilians. Included in the industrial regiments under those men, there were on June 30, 1907, 24,446 men — skilled and unskilled, American, West Indian, and European, all brought together under great difficulties. The climate of the zone made their care a matter of first importance. With this in view, the unhealthy conditions have been energetically and scientifically overcome by draining and clearing, by the extermination of the malarial mosquito, and by the paving of streets and the construction of waterworks and sewer systems in the cities of Panama and Colon.

With the comfort and welfare of the employees in mind, four club-houses have been built, and are now under the management of the Young Men's Christian Association. A chapel has been erected, besides three other two-story structures suitable for religious services, the upper floors of which are fitted up as lodge-rooms for the various orders and societies found among the employees. The construction work of the commission includes also bachelor and family quarters, barracks, bath-houses, cook-sheds and kitchens, hospitals, office-buildings, a large hotel, a machine and car-repair shed, an engine-house, shops, commissaries, sanitary store-houses, fire-department buildings, jails, post-offices, and fumigation houses.

The eight-hour law is applied to American labor, and it is thus protected from the rapid exhaustion of overwork in the tropics. The attitude toward the workmen of a Government department, working under public observation, is exemplified by the invitation extended by President Roosevelt to Mr. Samuel Gompers, the president of the American Federation of Labor, and to other labor representatives, to visit the zone, examine the treatment of the workman, criticize freely, and recommend improvements.

In connection with the work on the Isthmus, the Federal Government owns and operates a steamship line between New York City and

Panama, which consists of five passenger steamships, fitted with electric lights and wireless telegraphy. Efficient management of this line resulted in an increase in freight earnings from $788,000 in 1904 to over $1,000,000 in 1905. In 1906, despite the lowering of passenger and freight rates, the total earnings increased to $1,347,012. These steamers load and unload at Government docks, whose handling facilities are not excelled in speed and economy in any part of the world. The Panama Railroad, which connects Panama and Colon and distributes the steamer freight along the work, was operated by the Government so advantageously that its earnings in 1906 showed a 14 per cent. increase.

Collective ownership and control under a democratic government have never been tried before on so vast an industrial enterprise.

CONSULS AS SOCIALISTIC SERVANTS

The Consular Service is a socialistic organization, with officers in every important city of the globe, which serves as the eyes and ears of the manufacturers in the States. The functions of consuls have been very much extended within recent years. Their present duties consist in enlightening the people in their districts in regard to the superiority of American products, and in encouraging and facilitating the importation of such products into their districts. Possible buyers are invited to visit the consulates and examine the catalogues and samples of American goods kept there for inspection. And American trade journals are usually kept on file by the consul for the use of foreign buyers. Further, each consul is required to furnish commercial information for official publication in America. Daily and monthly bulletins, issued free with Uncle Sam's usual communistic generosity, keep manufacturers informed of the opening for their goods abroad. Each consul is, in effect, a trade drummer, maintained by the community for community advantage. It is his duty to bring to the attention of home manufacturers any opportunity to supply machinery, electric power-plant equipment, motor boats, automobiles, etc. Only recently he has been instructed to furnish systematized lists of the merchants in his district who handle or might be induced to handle American goods. This information is indexed and filed and, when complete, will constitute a business directory covering the world in every line of industry. Such a work could only be consummated through a strong Government bureau. For this work the nation coöperatively provides, because the nation collectively benefits.

SOCIALISM IN PUBLIC UTILITIES

In respect to the outright government ownership of public utilities, it is the municipality rather than the state or nation which has been most active. Municipal socialism is growing apace. From 1800 to 1900, public waterworks in the United States developed in round numbers from 6 per cent. to 60 per cent. of the whole number. Of the fifty largest cities in the United States, only nine are now dependent on private companies for their water-supply. Some of the belated nine appear to be on the point of changing to municipal ownership, and in practically all of them an agitation for such a change is in progress. Of the thirty-eight cities with a population of more than 100,000, only eight have private ownership. Of these, New Orleans will soon take over its waterworks, and Omaha is hesitating only over the question of price. Of the thirteen largest cities, only San Francisco, which ranked ninth before the earthquake, has a private supply.

The municipal ownership of gas has not been tried on quite so considerable a scale. Still, the growth has recently been rapid. Whereas in 1890 there were only nine municipal gas plants in the United States, there are now twenty-five, not to mention eighty-four small places selling acetylene, gasolene, and natural gas. The largest municipal plants are at Holyoke, Duluth, Richmond, and Wheeling. Thirty smaller cities in the United States and Canada possess municipal gas works.

Even more remarkable has been the recent development of municipal electric-light plants. Of the plants that were started prior to 1899, only 11.4 per cent. were municipal, while 27.8 per cent. of the stations opened from 1896 to 1902 were of this kind. Seven large cities — Chicago, Detroit, Allegheny, Columbus, Seattle, Grand Rapids, Nashville — have municipal electric-light plants. In the smaller cities, where the profits of over-capitalization have been less tempting to financiers, municipal ownership is most extensive. Altogether, no less than 1,055 places in the United States practise this bit of municipal socialism.

In all these cases, on the word of the Commission of the National Civic Federation, the municipal plants for providing water, gas, and electricity have done far better for the tax-payer and consumer than the private plants in anything like the same situation. Prices have been lowered and the plants paid for largely out of the earnings.

SOCIALISM IN NATIONAL LEGISLATION

There are in the United States many strong socialistic tendencies which have not as yet assumed very tangible shape, but which contain the germs of pronounced socialism. The attempts at railroad regulation, and the Interstate Commerce Act of 1906 would seem to lead eventually to public ownership. The factory acts, child-labor laws, ten-hour and eight-hour laws are all significant as showing the trend of national activity. The remedies which are proposed for the sickness which became acute last October in the financial panic involve, nearly all of them, a wide extension of collective or socialistic powers in the hands of the Federal Government. The bill of grievances of the Federation of Labor prays for Federal regulation in many of the most important concerns of labor. And the new charity, in its programme as voiced by the Charity Organization Society, the official mouthpiece of organized charity, places its hope in nothing else than an Americanized socialism. Recognizing that poverty is not due to the individual, but to social neglect and economic maladjustments, the new charity is fighting for tenement-house laws, child-labor laws, control of corporations through public-utilities commissions, sweat-shop regulation, and the forfeiture of some anti-social sources of income.

President Roosevelt denounces Socialism in one paragraph of a message to Congress, and recommends in a following paragraph the extension of such socialistic activities as the national ownership and operation of forest reserves and the collective reclamation of swamp and arid lands. Secretary Taft scornfully condemns Socialism in a speech one night, and the next day recommends that Congress shall build a second line of steamers owned and operated on socialistic principles. A Western publicist declares Socialists fit only for the gallows, and proceeds to extol the features of the reclamation of arid land which are borrowed from Socialism.

So far are theory and action divorced, that we can picture a city alderman lauding private enterprise and the source of American greatness, and denouncing collective enterprise as impossible. And yet, he walks down a city street, which the city sweepers are cleaning and the city repairers improving, to the city subway by which he reaches his office in the City Hall. There he washes his hands in city water, and runs the waste into a city sewer. He turns on the city electric light, and reads the mail which national departments have brought him from the ends of the earth. He glows with pride as he reads how gallantly his national army has subdued some Indians, and how cleverly his national navy has rounded Cape Horn. From his city newspaper, the *City Record*, he discovers that a meeting held the night before has decided to interfere socialistically with the outrageous capitalist management of the street cars. Before long, perhaps, his children come in from the city school, where they have had a school meal at cost price, to tell him that they are going to play that afternoon in the city playgrounds, and that his wife wishes him to call her up on the coöperative telephone to set an hour for their walk in the city park before taking the city ferry to the city swimming-baths. They all want him to take them later to hear the city band, though the lads would prefer to put in an hour or two at the city gymnasium, and the girls at the city library.

But the alderman can do none of these things, for he has engaged to give an address on "Socialism — Un-American and Dangerous" at the State University, of whose president, a state official, he intends to inquire how the eldest of his sons can prepare himself for the socialistic Arid Land Reclamation Service, and to find out at the same time what courses of study should be followed by his other two sons, one desirous of joining the socialistic Panama Canal work, and the other destined for the National Academy at West Point. Thus engrossed, he sends the children away after giving them some money, coined by a national department, with which to buy on the way home some meat and groceries which have been socialistically inspected and guaranteed, while he goes to the hotel, which is socialistically licensed, and drinks a bottle of wine that has been socialistically tested for purity. And then he feels properly primed to denounce "that foreign product — Socialism."

Mr. Wilbur Wright

Mr. Orville Wright

THE AIRSHIP IS HERE

HOW THE AEROPLANE LOOKS, HOW IT MOVES, HOW IT IS BUILT AND MANAGED—GOVERNMENTS GETTING READY FOR POSSIBLE AIR BATTLES —THE GREAT ZEPPELIN WAR BALLOON AS LONG AS AN OCEAN LINER—OUR AERIAL EXPERIMENT STATION—INSIDE AN AIRSHIP SHOP—UNKNOWN THINGS ABOUT THE AIR—POSSIBILITIES OF THE FUTURE IN FLIGHT, IN FREIGHT, AND IN TRAVEL

BY

FREDERICK TODD

A PUFF of white smoke, a rapid-fire splutter from an eight-cylinder gasolene motor, a whirr of propeller blades in the air, and the white aëroplane on the country race track starts gracefully forward, gaining speed as it glides through the dusk. Suddenly it lifts and takes a curving upward flight, this strange creation of muslin, light wood strips, and cross wires; and then it comes sailing over head and continues a swaying, swooping, uncertain flight down the valley.

A little group of people in the centre of the race track raise a shout. A dozen men standing two by two with watches in their hands at distances down the track also shout. Then comes a chorus from the crowd of onlookers along the railroad embankment on the hillside. Even the portly old gentleman with snowy hair and beard, who has been watching with his wife, puts dignity aside, takes off his hat, and waves his arms. The flying machine keeps its flight down the valley for more than

THE "JUNE BUG" AND AERONAUTS WHO WATCHED ITS FLIGHT AT HAMMONDSPORT, N. Y.

From left to right they are Mr. A. M. Herring, who has made successful flights in secret; Mr. Baldwin and Mr. Curtiss of the aërial experiment station; Mr. Charles A. Manley who collaborated with the late Professor Langley; Lieutenant Selfridge, U. S. A.; Mr. J. A. D. McCurdy; and Mr. A. R. Hawley, acting president of the Aëro Club: the photograph was made at Hammondsport when the *June Bug* made its first long public flight

M. FARMAN'S AEROPLANE IN FLIGHT

M. DELAGRANGE UPON ONE OF HIS TRIALS

THE "BIRD OF PREY," M. SANTOS-DUMONT'S AIRSHIP, ABOUT TO ALIGHT

HENRI FARMAN IN HIS AEROPLANE

SANTOS-DUMONT IN THE CAR OF HIS "BIRD OF PREY"

It was only the trial of a hastily built experimental machine in the hands of a young man who had never before been up in the air for an aggregate of thirty seconds in all his life. It does not compare with the twenty-four mile trip made by Wilbur and Orville Wright in Ohio three years before, but that was made in secret; it is like the awkward, tumbling attempts of a young robin, compared with the better steadied flights of Mr. A. W. Herring, among the hills back of the Hudson River, where he has ridden twenty-one miles, also in secret. It was not as notable as the sixteen and twenty minute flights of Farman and Delagrange, which Europe's champion aviators, made in public. But it was

M. DELAGRANGE READY TO SOAR

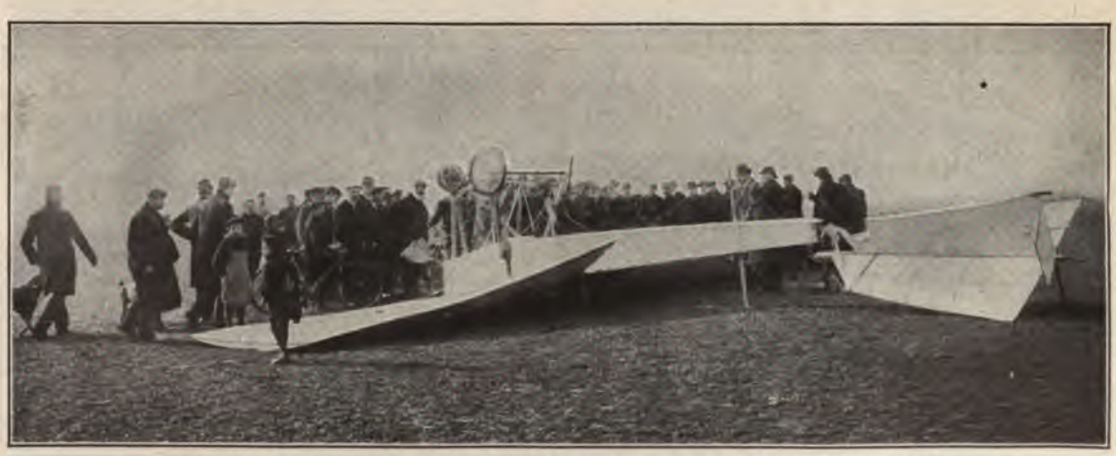
The curve of the under surface of the aëroplane "wing" is plainly shown

THE GASTAMBIDE-MENGIN MONOPLANE

French engineers are trying to perfect aëroplanes with wings on a single plane, after the type Professor Langley invented

THE TRIAL FLIGHT

The monoplanes fly but, so far, have shown unsteadiness and liability to turn over in flight



THE WRECK OF THE MACHINE AFTER A SOMERSAULT IN THE AIR

Experts in flying believe that after experiments have evolved a better arrangement of tail and rudder, and more is known of aërial dynamics, the monoplane will become a practical flying machine

THE ANTOINETTE GAS MOTOR

This is the motor most used in French flying-machines. The development of gas engines made the aëroplane possible

THE VOISIN MOTOR

Another type of French gasolene engine. In America the Wrights and Mr. Herring designed their own motors

sticks; while the strange paraphernalia of every kind of flying machine hangs or lies everywhere about. You feel at first as if you had stepped into the door of a castle in Spain, you who have just come up on a sleeping car from New York. It takes some time to regain your sense of reality. But the workmen talk about fitting ball-bearings upon the crank-shaft of this "dirigible" (they never add "balloon") or say that there is too much pitch to the blade of that airship propeller, or argue over the best way to make the light steel braces hold together the wood strips in the tail of an aëroplane. And so you get back to realities and find that you are in a country town in the United States — and have merely walked into a flying-machine

FORTY HORSE-POWER AERIAL GAS MOTOR

This is an American forty horse-power motor gas engine, built at Hammondsport for Captain T. S. Baldwin's military dirigible balloon

TRIAL OF THE WILLIAMS HELICOPTERE AT HAMMONDSPORT, N. Y

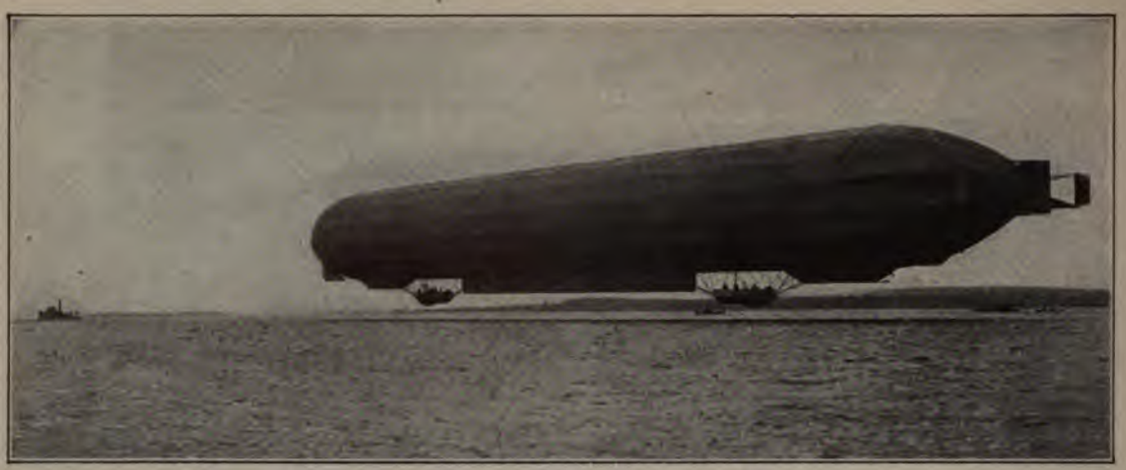
OTTO LILIENTHAL AND HIS GLIDING KITE

His experiments in balancing and gliding called attention among scientific aëroplane inventors to the necessity of practical knowledge of these things before a successful flying machine could be designed. He was killed while practising, but Mr. Herring and the Wrights followed his example in first constructing gliders that were steady, and then attaching motors and propellers

about it, as bigger and bigger it came onward until it was right over them. It was as if the *Mauretania's* swelling underhulk were swinging above them. Although lighter than the air-space it fills, the gasbag of Germany's war balloon is a huge thing to look at, nearly five hundred feet long and with the beam of an ocean liner. Whirling propellers flash in rows along the sides, and suspended in the shadow of the bellying aërostat are cabin and

DR. ALEXANDER GRAHAM BELL'S TETRAHEDRAL WING STRUCTURE

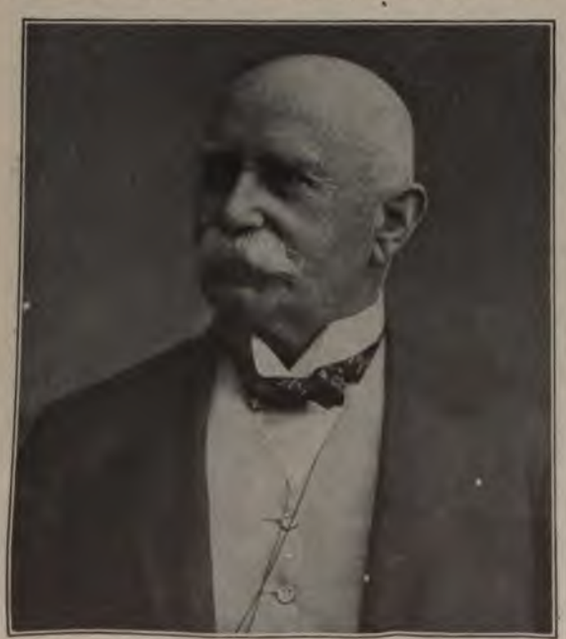
This is the Bell glider being tested on a float. By attaching rudders and motors Dr. Bell believes he will make an aëroplane that will fly at a slow speed and be steadier in gusts of wind than any other design of flying machine



THE ZEPPELIN AIRSHIP SAILING OVER LAKE CONSTANCE

This dirigible balloon consists of a row of ordinary round balloons with a stiff structure built around them. The machine is intended to be just light enough to balance gravity. With powerful engines and systems of side planes it is propelled forward, pointing upward or downward at the command of the helmsman. It is radically different from the French dirigible balloons and combines the aëroplane and the aërostat

bridge and afterdeck joined together with narrow gangways, all securely railed and partly enclosed in canvas. Back and forth along the airy structure a dozen men are moving. With glasses they can be seen hauling at ropes to set at different angles the flat wings that extend from the sides of the balloon's body at some distance above their heads. But for the most part it is evident that rudders and steadying planes move in continuous obedience to the wheel of a helmsman.



COUNT VON ZEPPELIN

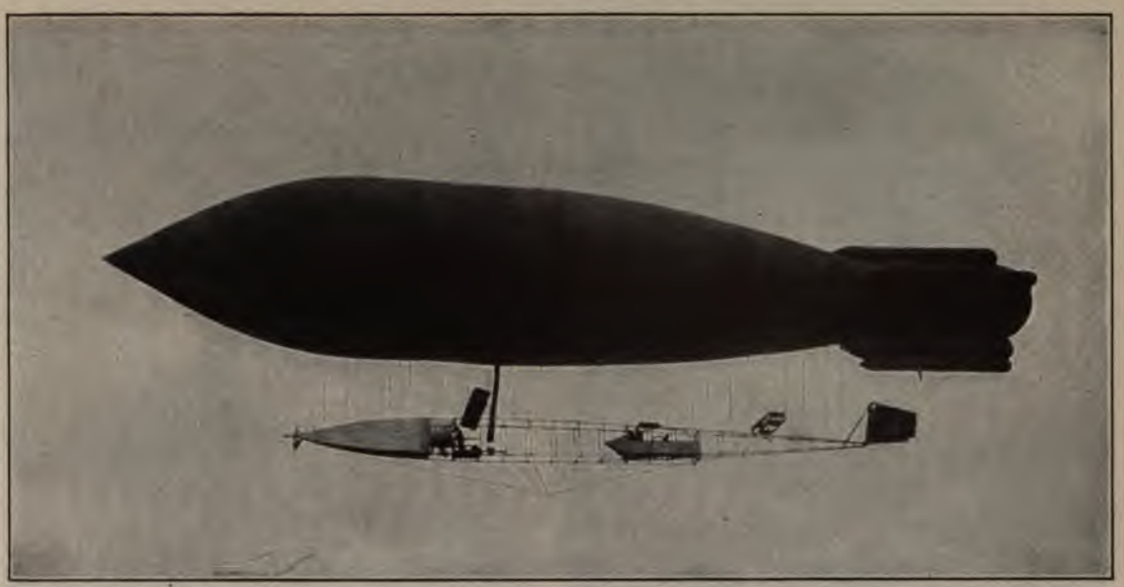
Inventor of the flying machine that has proved beyond doubt the practicability of aërial navigation upon a large scale

And thus the big battleship of the air moved on across the valley and passed up over the tops of a range of mountains to the eastward, continuing its wonderful maiden voyage over the German-Swiss frontier, and keeping the telegraph wires and ocean cables of the world busy for twelve hours, as it appeared over town after town within the German boundary on its way from Lake Constance to Friederichshaven; and then sailed over the Swiss Alps to show itself over Geneva, with its thousands of tourists from everywhere.

It was not only the rude peasants in the forests and villages and the Swiss shepherds that were filled with awe at the sight of the monster airship. There were men in European capitals, ministers of war, who had known that such a thing would be successfully launched at some time and had been trying to prepare for it, but who that day had it brought sharply home to them that the airship had arrived and that the nations must get ready for possible aërial warfare.

GETTING READY FOR SKY BATTLES

The long discussion at the last Hague Conference, as to how the laws of war shall govern flying-machines, is not the only sign that all military powers have seen the airship coming. They have been all astir about it, mostly in



"LA VILLE de PARIS"
One of the French Government's dirigible balloons

secret. It is a fair estimate that they have spent millions of dollars in experiments during the past year. The same cable that announced the Zeppelin triumph told how a German dirigible had collapsed over one of the inland forests. Nobody had heard of that balloon before, or knew what it was doing there. England has established a closely guarded camp for aërial experiments among the lonely fastnesses of the Grampian Hills, in Scotland. Likely enough Germany has done the same thing in the depths of the forest. Russia is building four big balloons. Sweden, Italy, Denmark, Spain, even little

IN A BY-WAY IN THE COUNTRY
Dr. Julian P. Thomas's balloon ready for an ascent

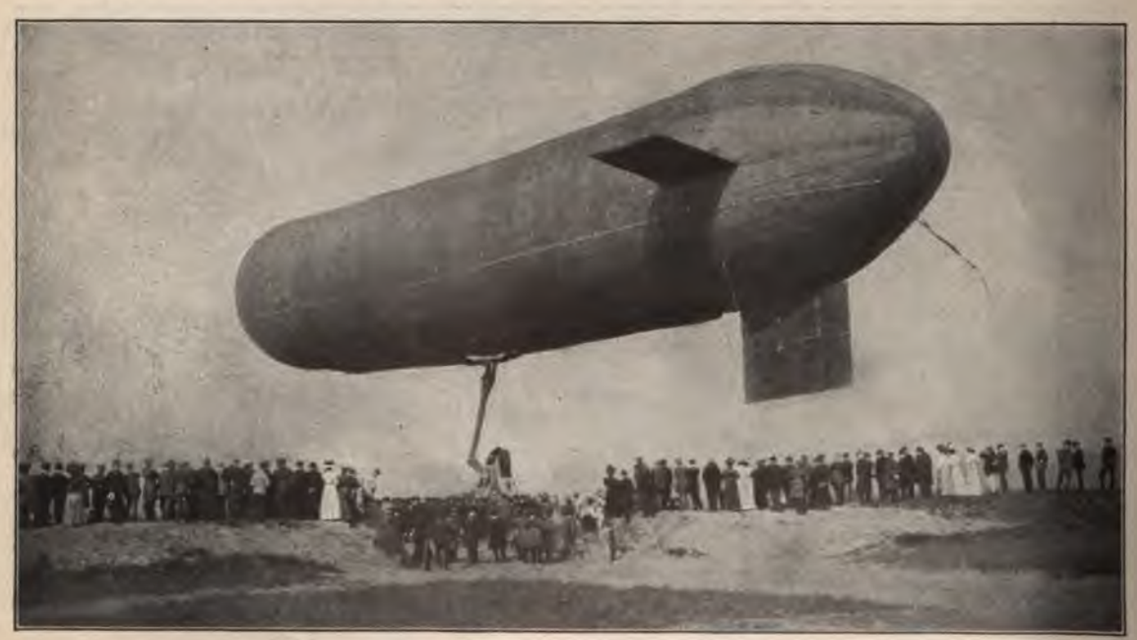
"NULLI SECUNDUS" ABOVE ST PAUL'S, LONDON

Nulli Secundus, the English airship of war, was caught in a high wind and was saved from destruction only by quickly ripping the gas bag and collapsing it

"LA PATRIE" SAILING OVER PARIS

La Patrie, the French military dirigible balloon, was blown away in a storm in spite of the efforts of its military guards to save it

Greece, have their military officers at work and watching. For three years it has been known to the Wrights and to Mr. Herring that highly trained experts were quietly watch-



THE GERMAN MILITARY BALLOON OF VON PARSEFAL

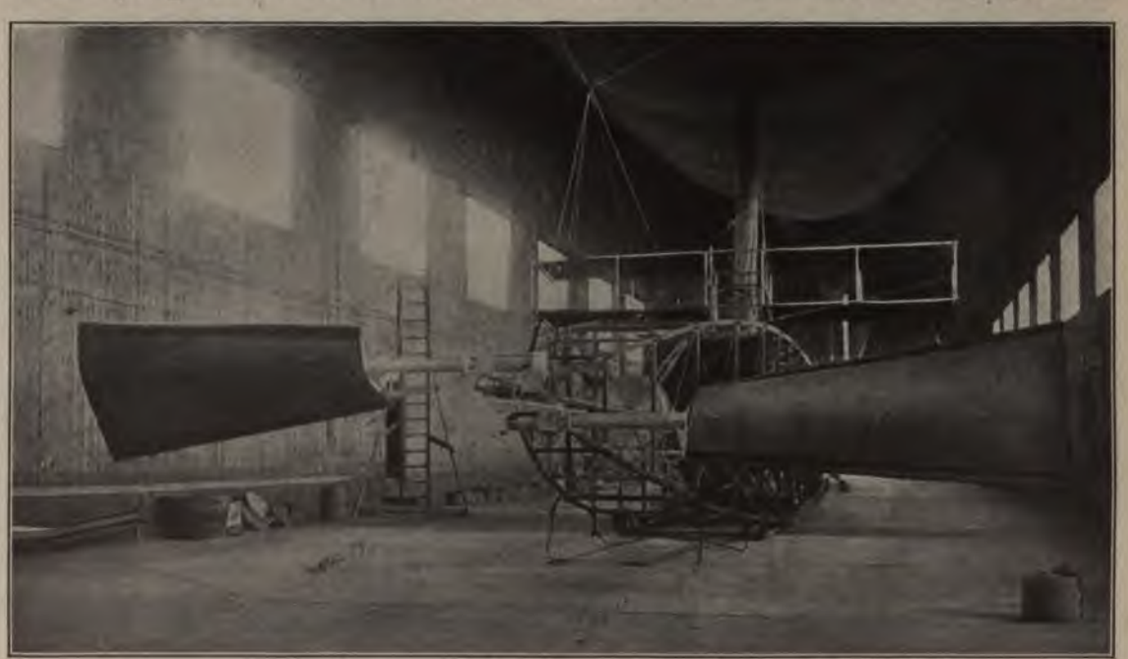
The efforts of its inventor have been put forth to design a dirigible balloon that needs no stiffening frame of wood

CAPTAIN T. S. BALDWIN ON THE "CALIFORNIA ARROW"
Captain Baldwin has built a 100-foot dirigible balloon for the U. S. Government

M. DELAGRANGE IN THE CAR OF "LA VILLE de PARIS"
The French military balloons are all much larger than any built so far in the United States

ing them here. France, the first home of aërial navigation, is building more great sharp-nosed balloons and keeping a close watch how the aëroplanes are progressing. Germany has, in her thoroughgoing way, detailed a corps of military engineers who are to start from the beginning and rediscover the laws of air dynamics.

A war automobile with rapid fire gun to shoot upward is already built. England's lumbering balloon, *Nulli Secundus*, sailed into London last summer at a fast clip. Men



UNDERBODY, TRUSS FRAME, AND PROPELLERS OF A BIG FRENCH MILITARY BALLOON

THE ILL-FATED CALIFORNIA MONSTROSITY

This freak dirigible balloon collapsed on its first trip and came down with its crew. Though some were badly hurt no one was killed

INSIDE A DIRIGIBLE BALLOON

Mr. C. O. Jones inspecting the gas bag of the *Boomerang* at Hammondsport, N. Y. The balloon had been filled with air

CAR OF THE FRENCH MILITARY BALLOON, "LA REPUBLIQUE"

The successor of the ill-fated "La Patrie" which blew away in a storm last year

CAPTAIN T. S. BALDWIN'S DIRIGIBLE BALLOON IN FLIGHT

THE CITY OF WASHINGTON AS SEEN FROM A BALLOON

with powerful field glasses have from distant hills watched the apparently successful flights, above that secret camp in Scotland, of an aëroplane shaped like a huge butterfly. The English are also said to have found a gasolene motor that uses up the heat of its explosions and thus does not need cooling. Men who study the subject know what these things mean.

And our own Government has not neglected to keep watch of these goings on. We, too, saw the airship coming. Brigadier-General Allen arranged a bureau of aëronautics as a part of the Signal Service. Out at Fort Omaha they have been trying the dirigible balloon. By a friendly arrangement, one young engineer is at Hammondsport working with the Aërial Experiment Association in trying aëroplanes. Another officer has been in Europe taking balloon trips and interesting himself in the things that Zeppelin, Von Parsefal, and the French military engineers are doing.

THE FORTHCOMING GOVERNMENT TEST

But to bring things to a point and to get something done at home our Government called upon American inventors outside the army. It advertised for bids to furnish flying machines, and forty hopeful Americans responded. But Uncle Sam wants machines that will really fly when he wants them to do so, and he has fixed the stiffest kind of a test for them, and then put it in the conditions that every would-be seller must deposit one-tenth of the amount that he asks for, as a forfeit in case his apparatus should not meet this test. Three men have taken him at his word. Captain T. S. Baldwin, a veteran balloonist, who built and sailed the *California Arrow*, contracted to deliver a dirigible balloon for $6,700. The Wrights agreed to sell one of their aëroplanes for $20,000. Mr. A. M. Herring of New York deposited his $2,000 as a guarantee that he would furnish an aëroplane for $20,000. All these flying machines must, under forfeit of the deposits, rise from the parade ground at Fort Myer, Va., carrying two men and gasolene enough for a trip of 125 miles. They must fly over the woods and the Potomac near the fort for a full hour and then return to the parade ground and land without breaking anything. The aëroplanes must make a speed of thirty-six miles an hour or be rejected. They must fly at forty miles an hour to get the full contract price; and there are premiums for the inventors if they exceed this speed. Any aëroplane to meet this test must give proof that it can do as well as Zeppelin's ship. And Congress will be asked to give $1,000,000 for more airships to be used in coast defense.

THE AËROPLANE AS IT NOW IS

It is probable that the casual observer watching the Government aëroplanes in practice flights will find no great difference between them. All of the heavier-than-air flying machines that have remained more than a few seconds in air have grown out of one American gliding kite. It is therefore possible to describe the typical aëroplane of 1908 pretty accurately.

The typical aëroplane is an exceedingly light framework of thin wood strips with varnished silk stretched tight over the top and the bottom, making two long, narrow kites, held nearly level, one over the other. This structure is mounted across a short chassis with bicycle wheels, so that when the vehicle moves the kites come on edgewise, like knife blades, into the air. Upon the stiff frame of the chassis are the seat for passengers, the motors, and the shafts of the propellers which are whirled in the rear. Rudders are either at the front or the rear of the chassis. When the engine is set going and the propellers thrust the aëroplane ahead, it runs on the ground on its wheels until it gathers such speed that the kites, tilted just a little at the front, take the air and rise. Somewhere, front or rear, is a flat broad plane that causes the aëroplane to rise or to dip when hinged at angles. Swinging from side to side in the rear is a rudder or two that the aviator uses to turn his machine in its course. There may be a tail to steady the flight. Either by small hinging planes at the sides, or by making the outer rear corners of the kites flexible so that they bend up or down, up on one side, down on the other, the kite structure can be made to lean when rounding turns, and to come to a level when the machine tips for any reason. All these devices are worked by wires from a wheel, by levers, or by other controlling mechanism at the aviator's seat. The control of the motor is also under his hand.

The Government aëroplanes are finished machines. Every piece of material in them has been shaped after calculation of weight and strength. The small parts are designed so as to be interchangeable. The fabric of

the wings may be rolled up, and the framework, made in sections, taken apart. Hollow steel joints that screw or bolt together make it rigid when assembled again.

The wings of an aëroplane are things of beauty. Narrow, carefully curved, and tapered ribs of hickory are sewed into the silk so that they are covered as if in the border of a hemstitched handkerchief. The fabric also rounds the strip at the front edge. It is stretched tight as a board and then varnished with a guncotton mixture that hardens like a thin film of celluloid. The curving ribs impart a concave shape to the under surfaces of the great wings. Through the translucent silk, the fine ribs show like the veins in a dragonfly's wing. But there is more than beauty in the shapes. The surface curving of an aëroplane wing is all in all. Know the right curve and your machine will fly.

To explain why the shapes of supporting wings in aëroplanes and of the blades of aërial propellers mean so much is to bring up the whole fascinating new science of the dynamics of the air, which made the flying machine possible.

Take a down feather and flip it from the thumb as a boy shoots a marble. If the thumb springs quickly enough the feather will shoot away for four inches, then spring back two. It has followed the movements of a little mass of air that was thrown by the thumb, was stopped by the air in front of it, and sprung back by the air's perfect elasticity under pressure. The wonderful quality of viscosity in the air is shown when a locomotive sends rings of smoke from its stack. The air rolls upon itself, cohering and passing through other air with very little friction. Throw a feather into the whirl of an electric fan. It will at times sail through the blades, go on for a few inches, then whirl back through the centre, zigzag about, and finally strike the straight way onward. The air masses have been in a turmoil as momentum and elasticity and viscosity took part in their direction. Take a card and let it slide obliquely from the hand. It will invariably turn over and over backward. Laws not now understood in their completeness govern this motion through the changing of pressures on different parts of the surface as it strikes the air obliquely at different angles.

The wing of the aëroplane, slightly inclined, strikes the air in its swift onward rush and forces it downward. But the air does not move quickly. It is inert, inclined to stay together in masses and flow evenly, and the oblique wing is also rarifying the air above, so that there is more pressure below than on the upper surface of the wing. There comes a point, as the speed of the aëroplane increases, where the weight of the machine cannot make the air move quickly enough, and where it cannot sink in its flight.

The air, however, does not press up equally on the wing. The front surface of the plane strikes it downward, and it has taken a downward direction when the back surfaces arrive. Here is where the curved surfaces come in. Long experimentation with differently shaped wings, at different speeds and different angles has taught, to some degree of exactness, what curves should be given to supporting planes. The narrow wings and the propeller blades have been found to be most efficient.

MEN WHO HAVE MADE THE AIRSHIP POSSIBLE

The creation of the airship has been the work of a quarter of a century, of a group of men who for the most part worked far apart and independently but sometimes together and always, whether they intended it or not, toward the common result. One found out this necessary fact. Another managed to do that essential thing. A third added something from his own genius to the accomplishments of both. A scientist experimented, analysed, classified a mass of detailed facts, and formulated the laws of the dynamics of the air. A clever engineer discovered nearly all the same things and was using them, piecemeal, in his work. The two compared notes and were both helped by an interchange of point of view. A German poet-engineer went out with an experimental pair of wings and learned how to get the *feeling* of what these other men had put down upon paper. He gave his life to the attempt to learn how to fly. The aëroplane inventors gave ideas to the dirigible balloon enthusiasts, and *vice versa*. The airship grew out of the combined efforts of scientists, engineers, practical mechanics, unclassified geniuses.

Renard, French army engineer, built a dirigible in 1884 that only Zeppelin's has improved upon, save in the matter of the gas motor, which has only lately been perfected. Maxim constructed a monster aëroplane that showed others what not to do. The last

Professor Samuel P. Langley, of the Smithsonian Institution, and Mr. A. M. Herring, of New York, both studied the dynamics of the air. Otto Lilienthal, a German, showed how important it is to know something about balancing and actual flight before going ahead to build an aëroplane. Octave Chanute, an American, went on with Lilienthal's work when he was killed, and later put his knowledge at the disposal of Wilbur and Orville Wright, of Dayton, Ohio, who had been building bicycles and later took up the aëroplane. They went on and learned more. Herring went over the whole ground, having become enamored with the idea of the flying machine when a boy. He took an engineering course with the aëroplane in mind, built cycle gas motors to start with, and later founded a paying technical magazine to finance his flying-machine work. There was not any light gas engine, scarcely a good heavy one. Both Herring and the Wrights designed their own. The Wrights out in Ohio and at Kitty Hawk, on the Carolina coast, tried gliding kites, as Lilienthal had done to get the knack of flying. Herring did the same secretly within a few miles of New York.

Thus America gave the world the aëroplane, helped somewhat by Europe.

And while other men were working with imitations of the Renard dirigible balloon (its shape, fin-like wings, and the air-bag inside that is blown full or emptied from the car suggesting at once the anatomy of a fish) Count Zeppelin, a German, built a stiff frame structure around a row of ordinary balloons, gave it the shape of an ocean liner, built underneath this strong hulk a spacious deck and cabin upon which a searchlight and wireless apparatus can be carried, and sailed on a real sky voyage in a veritable airship that is more wonderful to see than any airship ever pictured in imagination. This is the story of the airship up to this time.

WORKING FOR THE PERFECT MACHINE

These men created the flying machine of 1908. Who will make the machine of 1918? The electric dynamo was a crude little machine in 1880. Now Niagara is harnessed, whole cities are lighted, and wireless messages cross the ocean.

In France, where the flying machine originated, a score of able men are at work. The machines that Santos-Dumont, Farman, and Delagrange have flown are all copies of our aëroplane of 1908. But Ferber, Vuia, Bleriot, Voisin, Esnault-Pelterie, the builders of the Gastambide-Mengin machine, de la Vaulx, Bertin, Cornu, and others are trying other types. We have two utterly unlike flying machines to-day. There are possibilities in other types of aëroplanes than the one we have, machines that will have their special uses.

There is the helicoptère, in which a propeller is expected to lift the machine right into air without any necessity of speeding as aëroplanes must. Cornu in France, and Williams and Kimball in America, one an electrical engineer, the other a manufacturer of typewriters, are working on this idea. Great freakish things with flapping wings called ornithoptères, machines that wave themselves through the air as a fish swims, gyroplanes, apparatus with planes moving flat downward and coming up edgewise on belts — all these ideas are in process of trial, and any of them, because of some peculiarity of flight, may be safe in storms or able to hover, or to fly at heights, and may furnish the features of the best aëroplane of 1918. Bleriot leads half a dozen serious workers in trying the monoplane, either like Langley's or shaped like birds and insects. These have so far been unsteady and more than likely to turn somersaults in the air, but they may become the best type when men really know something about flying. And there are combinations of dirigible balloon and aëroplane, and of aëroplane and helicoptère to be tried And who knows what Zeppelin will still do?

THE AËRIAL EXPERIMENT ASSOCIATION

In America we have the Aërial Experiment Association at Hammondsport, N. Y., which has already become as famous for airships as it used to be for native wines, and it is a centre for the exchange of aëronautical ideas. Dr. Alexander Graham Bell, inventor of the telephone, has built up a honeycomb structure of tetrahedral cells which he believes will be the supporting apparatus of an aëroplane that will lift when going slowly and be especially stable in gusts of wind. This would make it a slow aëroplane — a machine that could be put to good purpose. He associated with himself two young Canadian engineers, Mr. F. W. Baldwin and Mr. J. H. D. McCurdy. Then he negotiated with Mr. G. H. Curtiss, of Hammondsport, who had already made a name for himself as the builder of light

gasolene motors and had himself, upon one of his motorcycles, made the world's speed record at Ormond Beach, Florida. Mr. Curtiss began for Dr. Bell the construction of an extremely light and powerful motor to attach to the new aëroplane. Dr. Bell decided to spend the winter at Hammondsport instead of at his laboratory in Nova Scotia. Experiments were begun with the apparatus. The United States Government arranged to have Lieutenant T. E. Selfridge attend the tests and coöperate. Thus five experts were associated in airship work.

Mrs. Bell became interested in the work and suggested that they form an association to experiment with all good new ideas that came to their notice. She offered to furnish the funds to carry on the work. This was the beginning of the activity at Hammondsport which has attracted much attention. Three experimental aëroplanes have been built and flown. The *June Bug* whose first trial flight was described at the beginning of this article, carried Mr. Curtiss a mile on July 4th, in the presence of a number of experts, including Mr. A. M. Herring and Mr. Charles M. Manly. The amateur aviator had learned enough by the time of this flight to make a complete circle with his machine, but on the second attempt to turn he made the apparatus lean too far and so slid down the wind, sidewise. This flight was considered significant, showing what can be done both in designing aëroplanes and in rapidly learning how to fly them.

The well-equipped shop for flying-machine construction, with workmen used to the peculiar tasks, has attracted to Hammondsport many American inventors. Captain T. S. Baldwin built his dirigible balloon for the Government there. The Williams helicoptère was there built and tried. The town has become a centre for the exchange of aëronautical ideas. Young men from the universities who are doing original work in aërial dynamics are already making their appearance there to talk with the experimenters and to have small experimental apparatus made.

THE AËRO CLUBS

The revival all over the world of ballooning as a sport has resulted in the springing up everywhere of aëronautical clubs and of the formation of the International Aëronautic Federation. International balloon races, in which the old-fashioned aërostats and the new dirigible balloons participate, and even aëroplane meets, are now of frequent occurrence. The Aëro Club of France, with its thousand members, is the big brother of associations in every large European city. In America there are three strong clubs and smaller ones that are just organizing. A. C. Triaca, a pilot of the French club, has established an aëronautical school in New York.

In Paris, balloons rise at all times from the aërostatic park where gas and other necessities of ascent are provided. The Aëro Club of America, which is at once the parent club which represents all America in the international federation and the New York association, is planning to establish an aëronautical park inland, probably on the Hudson River, where gas for ascents may be obtained at about fifteen dollars a trip, instead of nearly sixty, the cost of making an ascent nowadays. In England, women are as enthusiastic about the sport as men, although the dangers of ballooning over an island are well recognized.

Members of the European clubs have offered an aggregate of $150,000 in prizes for comparatively easy first performances of aëroplanes. The enthusiasm of some of the Paris aëronauts for everything that has to do with flying is shown by the care they took with "Coco" a pet vulture in a Paris zoo which had never learned to fly until they taught it how.

An elaborate aëronautical map of Europe is being made by coöperative effort. While ballooning attracts most of the members of these clubs as a sport, they give hearty support to the serious-minded scientists who are members and who are engaged in a systematic study of the far heights of the atmosphere and of weather science. Following the example of the wealthy young Brazilian, Santos-Dumont, whose greatest work for aëronautics has been to make it popular by his exploits, they are encouraging in every way the improvement of dirigible balloons and aëroplanes. The first great development of the aëroplane will be its use in sport.

THE TREACHERIES OF THE ATMOSPHERE

Learning to fly is not an easy matter. As for dirigible balloons like that of Zeppelin, those who attempt them will do well first to seek the guidance of some sky pilot. But aviation in quiet weather has only the least spice of danger for the man or the woman of

good physique, nerve, and judgment. And there will be pilots.

We who live on the ground have no idea of conditions just above the housetops. We take little notice of gusts, having our feet well planted upon firm earth. But above us the great aërial ocean is in a constant swirl. Near earth it is like a choppy sea; above, the winds move ordinarily in grand sweeps. In storms it is like a vast churn, big air-masses booming about, colliding, and glancing off, or flowing around each other in swirls like the patterns of an old-fashioned shawl. Watch the convolutions of cloud-masses, even on fair days.

Mr. A. M. Herring, flying fifty feet above the surface, can feel, he says, the presence of every tree, large rock, stone fence, and stream that he passes above. The wind, flowing along, beats against these obstacles and bounds upward, as a punching bag bounds when struck. It strikes the underside of the aëroplane with a perceptible blow. Even at great heights the unevenness of the earth's surface is felt in gently rounding upward swells of the air, over which the machine rides.

But side gusts and sudden vertical swirls are what the flying machine dreads most. They may capsize it or tip it so far that it glides edgewise to earth. One of the well-known European aviators is said to return from every trip tired out by the physical exertion of keeping his machine steady. The American machines have been improved to the point where this is not so trying. The aviator upon the Wright machine, holding compound levers in his hands, becomes so used to balancing, the motions being those that he would naturally take, that flying becomes a second nature to him, just as balancing upon a bicycle is done unconsciously. Mr. Herring has automatic devices upon his aëroplane by which the machine tips so slowly that it rights itself directly after, or gives the aviator plenty of time to act. Wilbur Wright says that the aëroplane's wing is an improvement upon that of the bird. And the bird finds no trouble in flying in high winds and gusts. Mr. Herring declares that the aëroplane can fly in the rain.

FUTURE USES OF DIFFERENT MACHINES

And now what is to come in the future of aërial navigation? It will first be developed for pure sport, just as the camera and the automobile were. But who at first thought that the little box for taking pretty pictures would become indispensable? Bold spirits will rise in the aëroplane till they are as much at home in the air as birds. With this familiarity will come intimate knowledge of the atmosphere above us that will not only mean bigger and more elaborate airships, maybe adaptable to commerce, but the development of weather science to the point of exactness.

In war, the dirigible, floating high, may make distant observations. The aëroplane, skimming the land at night just above the enemy's works, will scout. A rifle shot through its silken wing means nothing. Even a shattered rib would not count for much. Darting with the black flash of the night-flying bat, no sharpshooter could take aim close enough to find its engines except by chance. A steel plate underneath the aviators will protect them. Only shrapnel from a broad muzzled gun could bring one down. When the great dirigible balloons of an enemy's air-fleet should come across the border — and the airship needs seek no single port of entry — the aëroplane might soar into the air and attack it as the torpedo boat may attack fleets. Dodging by, in spite of the fire of a rapid fire gun from a Zeppelin deck, it may squirt any one of a dozen acids to eat through the gas-bag and set it aflame, or it may fire an aërial torpedo. It is said for the Wright machine, and it is probably true of others, that it can leave and return to the upper deck of a battleship at sea with safety. Thus may it enter naval warfare.

EXPECTATIONS OF GREAT SPEED

Mr. A. M. Herring estimates that an aëroplane carrying two men, fuel, and instruments, can eventually remain thirty hours and travel 2,500 miles without a landing, and that speeds as high as 125 miles an hour may be conservatively looked for. Count Zeppelin states that his ship can float forty hours and go 1,200 miles with engines constantly running. This makes the trip to the pole a possibility, although there are climatic conditions that Count Zeppelin may not have taken into consideration. But an aëroplane, carried to the northern limit of navigation, and not so sensitive to weather, may make a dash to the pole in a day. At any rate, there may not much longer be any excuse for white spaces on the map of the earth.

But the most alluring probabilities of aërial

navigation exist by virtue of the atmospheric swirls already described as being the chief annoyance of would-be aëronauts while they are fledglings. The great frigate bird, true to its name, sails for hours across the heights of the air with never a quiver of his wing. Many have been the attempts to explain this wonderful soaring flight. The albatross and the vulture also do it. It seems to be the family secret of the largest and heaviest birds. The most conservative explanation of this flight is that birds have knowledge of the air-swirls and that they seek currents that bear steadily upward and ride upon them. That the winds of the altitudes are sometimes steady onward rolls of air is known. That the eastward steady wind that blows from the Mississippi to the coast bounds upward thousands of feet when it encounters the west slopes of the Alleghanies is a known fact. Currents of warm air from the heated earth break through overlying strata here and there and flow upward like smoke through a chimney.

Dr. Bell, the Wrights, Mr. Herring, Mr. Hargraves, and many other enthusiastic but careful observers believe that with expertness in machine flying will come such a knowledge of these upward currents as will enable the aviator to stop his propellers and to soar like the frigate bird at great heights.

Aërial navigation is now in its infancy. Who can say that we may not have aërial freighters? The corporations are already seeking the control of aërial navigation. A company has been formed in France to supply every kind of flying machine and things that appertain thereto. Clothiers say that people are already asking what kind of clothing is proper for balloon trips. And it has been reported that a German company will try to run a regular line of Zeppelin airships across the English Channel.

THE LAST OF THE CATTLE KINGS

MR. HENRY MILLER, PASTORAL DICTATOR AT EIGHTY-THREE

BY

FRENCH STROTHER

ASK any rancher on the Pacific Coast if he knows who Henry Miller is. He will tell you that Mr. Miller is the cattle king, and that he owns more land than any rancher in the West.

"How much?"

"Millions of acres."

"How could one man get that much land?"

And then the rancher will wink.

"From the Government, most of it."

And he will tell you a story — every rancher in the West knows a story about Mr. Miller.

Most of this land is used as cattle and sheep ranges, but about 30 per cent. of it is cultivated — to grain or hay or something else that will fatten livestock. Cattle raising is Mr. Miller's business; he has never invested nor speculated in stocks, nor yielded to the almost universal Western fever for mining, nor engaged in any mercantile business, except to run a few country stores near his ranches for the convenience of his men. Some of his lands are in the richest part of the already developed oilfields of Coalinga, Cal., but he refuses to spend a cent to dig wells for oil.

"Maybe it is there," he says, "but I know the cattle business, and I shall stick to it." He has made $20,000,000 in it, so perhaps he is right.

Mr. Miller's success in cattle raising is his own secret. He buys cattle and sheep and hogs, lean or fat, runs them on his own ranges, shipping them from ranch to ranch to utilize all the grass and stubble, puts his own grain into them, and when they go to market they always make a profit. He buys in tremendous quantities. He once ordered his head sheep-foreman to buy all the sheep for sale in Nevada at any reasonable price. The foreman bought all but 15,000 head, which were held at $5 apiece, which he thought too high. He reported to Mr. Miller in Southern California. Without a pause Mr. Miller said: "Take the next train to Nevada and buy them."

That was a $75,000 purchase.

He does not bargain. He will look at a herd of cattle or a likely band of sheep, ask the number, and offer a lump sum for the lot without further examination, even if there are thousands of head. And he will not alter the offer. The seller can take his check or let Mr. Miller go.

His ranches are models of neatness and order and thrifty management. Every one of them is better managed than the neighboring ranches. Every one of them is under Mr. Miller's direct, personal supervision, constantly. For forty years he has been traveling, from ranch to ranch, inspecting his property, directing the planting of crops and the movements of his herds, buying and selling. He travels by train where he can, but usually he drives a fast team, traveling fifty or sixty miles a day. He is eighty-three years old, and he still follows this custom. In April he was seen at one of his ranches, a hundred miles from his home, in an open buggy in a driving rain, directing the spring plowing of a great field.

He never rests — he hardly sleeps, of late years. Somebody asked him recently why he did not hire a manager to superintend his estate, and stop his rush of work.

"Whom could I hire?" was the sufficient answer.

He is still adding to it. He rarely sells land: he buys more. He has resisted the prevailing tendency to subdivide the great estate into colonies for small farmers. He had an ambition, earlier in life, to own the whole state of California. He once said, half in earnest, that he owned half of the state, and that his son could own the other half if he would. But the father has outlived the son and increases his holdings by the sheer momentum of his tremendous interests.

Mr. Miller was born ten years after Andrew Jackson won the battle of New Orleans. He came to America when he was sixteen and drifted westward from New York, reaching San Francisco when he was twenty-one. He rose from the position of butcher's boy to be a partner in a small retail butcher business with the late Charles W. Lux. The firm name of Miller & Lux is used to-day, though the business was incorporated long ago, Mr. Miller retaining considerably more than a controlling interest in it. The partners branched out into the cattle business, and that led them into acquiring land for grazing. Mr. Miller has dominated it from the first.

The Federal land laws were loosely construed in those days, and Miller & Lux's cowboys entered homesteads from the vast public domain, and made them over to the firm when they had perfected title. Other lands were bought and incorporated into the ranches, until it became a proverb in California that the firm could drive its cattle from Mexico to San Francisco and camp them nightly on its own land. This is an exaggeration, but a conservative estimate, made for this article by a director of the estate, credits it with 600,000 acres in California alone. Mr. Miller also acquired lands in Nevada and Oregon, though he says that his one great mistake was leaving California — it prevented the realization of his dream of owning that state.

He has organized the business thoroughly. Each ranch is managed by a foreman, who has a sub-foreman for the farming, another for the cattle, and another for the sheep. The foreman's wife is usually responsible for the housekeeping and cooking for the men. Each group of ranches is managed, in turn, by a general manager, and there is a superintendent of all the sheep interests of the estate. But every ranch is under the constant personal supervision of Mr. Miller himself. He times his visits to the ranches so that he will not be expected. He goes first to the bed-room that is set apart in every ranch house for his exclusive use. If the room is spotlessly clean and in perfect order, he is pleased: if not, he makes trouble. Then he goes to the kitchen. He inspects the pantry for dirt, the food for bad service, the garbage buckets for wastefulness. He inspects the ranch buildings. Everything must be in perfect order. A piece of baling wire or an end of rope left to lie on the ground he regards as an evidence of unthrift; a dirty yard is evidence of negligence; a broken fence or a leaky roof is proof of bad management, and he gives way to a terrific temper when he sees it. He is liberal in many ways, but he considers wastefulness a crime.

On a visit to one ranch he noticed a hen with a fine brood of chicks. He called a companion's attention to them, and was as pleased with them as if they were golden eggs. A month later he visited the ranch again. He asked the stable-man what had become of the chicks.

"Rats ate 'em," was the response.

"Rats ate 'em! Rats, eh? Rats, sign of decay! Where's that damned tramp of mine?"

The "tramp" was the foreman. He was called and got a tongue-lashing that was the premonition of his discharge a few months later for incompetency.

Despite his habit of close supervision, he allows great freedom of action to his most trusted higher employees. One of his chief lieutenants acted for years under instructions to "buy anything you see that will make money — cattle or sheep or land." He drew checks for hundreds of thousand of dollars, in all, against Mr. Miller's account for things that Mr. Miller had not previously passed upon.

"I have never seen one of those checks again, so I suppose it was all right," he says.

This man bought 200,000 sheep for Mr. Miller in one year — from June to June. Sometimes he would see his chief in Oregon, and discuss business with him, sometimes in Nevada or California, sometimes not at all for months. Once they met in Bakersfield, Cal., and as they parted Mr. Miller called him back.

"By the way, if you see any good land for sale, buy it. I have a little spare money I want to invest."

"How much?"

"About three hundred thousand dollars — a little more than that."

He does not demand great speed in doing work; he prefers thoroughness that is pretty near perfection. But his employees must be workers. A vaquero asked him for a job. Mr. Miller said yes, he had one vacant.

"What 's in it?" said the cowboy.

"Thirty dollars, thirty days, and thirty nights," was the response.

He is "a good man to work for," however. He is generous to people in distress; he feeds and lodges his men well, he rewards faithful service by looking out for those who have passed the age of usefulness in his employ.

He is often generous to people who have no claims upon him. The cook at every ranch has orders to feed every person who stops there hungry — and to ask no questions. Anybody who reaches one of his ranches at night may stable and feed his horses, lodge in the ranch house, and eat with the employees, without charge and without question. A man who needs meat may kill a sheep or a calf from Mr. Miller's herds, provided he uses the meat himself and does not sell it. Of course, these things are more than generosity; they a a protection against the spite of tramps a the depredations of thieves; but they in cate a pretty broad-minded man, too.

He has to make concessions to necessity other ways; he is known by everybody and has to travel thousands of miles alone throu a wild country. He is frequently held up a robbed in consequence; but he never attem resistance nor reports such incidents to t officers of the law. If he did, the next m who robbed him would probably kill him, he usually carries only a little money a charges the robberies to profit and loss.

Once he was robbed in Pacheco Pass by Mexican, who took $200 from him. M Miller knew the man, and reminded him th he was a long way from home and asked t highwayman to lend him enough for expens The Mexican handed back a $20 goldpie and disappeared. Several years later M Miller saw him on the street in Hanford a offered him $20.

"I borrowed this from you once," he sai

"I never saw you before," said the Mexica

"Oh yes you did. I borrowed $20 fro you in Pacheco Pass, three years ago."

And he made him take it.

But he is a fighter, too. He has "lawe more, as the old-timers say, than any man the coast. He employs an attorney in nea every town near his ranches, and he w fight any legal dispute to the last resort.

Water is indispensable in this semi-ar country. A large share of Mr. Mille lands and cattle depend upon the San Joaqu River, in California, for their water-suppl He owns much of the land that borders on t river, thus securing "riparian rights," and took out, in early days, a great many pate from the government to "allotments" of many miner's inches apiece for diversions the water from the stream, so that to-day practically owns the entire flow of one of t largest two rivers in the state. He has had fight for it most of his life — with arm bands of cowboys in many instances, a in the courts all the time — but he has beat his last opponent, and the Supreme Cou has recently affirmed his ownership.

But the fiercest of his fighting is past. T titles to his lands seem to be secure; he h reduced his business to a smoothly worki organization, with a central office in S Francisco, in charge of his son-in-law; h

time is filled with the labor of keeping his affairs in order, and with brief visits to his home in Gilroy, Cal.; he has resigned his ambition to own the whole state, and has exchanged it for another. He is trying to create a public sentiment for a new county to include most of his holdings in the "West Side" of the San Joaquin Valley, to be called Miller County. He will probably succeed in this ambition for perpetuating his name.

HOW THE STANDARD OIL COMPANY DOES ITS BUSINESS

II

THE MEN WHO MAKE UP THE MANAGEMENT — HOW THE ORGANIZATION WAS FORMED — A "CONQUEST OF PERSUASION" — THE PERFECTION OF THE ADMINISTRATIVE MACHINERY — WORKING AS A UNIT FOR EFFICIENCY AND FOR THE PREVENTION OF WASTE — WHAT "ECONOMY" MEANS AT 26 BROADWAY — THE *ESPRIT DE CORPS* OF THE MEN, SMALL AND GREAT — FEW DIE AND NONE RESIGN

BY

C. M. KEYS

(*The second article on the Standard Oil Company in a series on Great Corporations*)

TURNING from the export business of the Standard Oil Company to its administrative side, I went to see Mr. John D. Archbold. vice-president and a director of the organization, and asked him for his explanation of the genius of the company. The gist of what he said is quoted briefly in these paragraphs:

"An analysis of the Standard Oil Company must begin with Mr. John D. Rockefeller; for he conceived it, created it, and was its vital force for many years. His genius underlies its methods still, and will continue to do so while the men who grew rich and strong with him continue at its head. It is not the most skilful mechanic, the most skilful executive, the most skilful merchant, the most skilful financier who makes most money and achieves most fame. It is the man who, by his power of control, can so draw together the best men in mechanics, in executive work, in buying and selling, in finance, that they work as a unit.

"Mr. Rockefeller has been that man. That is the secret of the Standard Oil Company; and it is also the secret of Mr. Rockefeller himself. His control over men is a constant marvel, both to the outside critic and to the men in the company itself. The present Standard Oil Company has been evolved slowly. It began with a small group of men drawn together by the magnetism and the power of the Rockefeller firm in Cleveland. These men have worked as a unit for forty years, a period of national growth, of ever-widening industrial interests, of tendencies that have given to the leaders of this company all possible opportunity to break away, if they so desired, and find in the new order of things all the scope for their activities that they might wish.

"Yet these men whom Mr. Rockefeller gathered together from so many fields to administer his companies have stood solid through all the changes and vicissitudes of this great period. From time to time, tales go abroad of bickerings and internecine warfare within great corporations; but in the Standard Oil Company there is none of it. Of course, men have come, and men have gone; but not one of the men to whom the Rockefeller interest has entrusted great power has ever proved traitor. Death alone has broken the circle, and in almost every case where one of the inner circle has been taken away his sons or his heirs have remained bound in the strongest and most faithful interest to the ends of this corporation.

"It is little wonder that this company has grown powerful and has gone far in the markets

of the world. Given the oilfields, the world-wide markets, and the genius of Mr. Rockefeller, and some such result was inevitable. It was simply the solution of a huge commercial problem, the bringing together of the producer in the scattered fields and the consumer in the scattered markets. In its inception the Standard Oil Company, with its concentrated capital and its concentrated brains, was the most perfect machine that Mr. Rockefeller and his partners could conceive for the solution of this difficult problem."

THE CUTTING OUT OF WASTE

The elimination of waste is the heart of the Standard Oil Company — this concentration of the brains and of the power of men. These men, supreme in their respective fields as mechanics, executive administrators, merchants, and financiers, synthesize their genius and devote themselves to the business method worked out, completed, and perfected through forty years of hard experience.

That method may be put in a phrase. It is the elimination of waste, in material, in men, and in the labor of men. These three mean money. The method of the Standard Oil Company is the saving of money. In the present industry almost the same things are done as were done in the industry forty years ago — crude oil is bought or produced, refined, and sold in the markets of the world. The difference is that the old régime was reckless and extravagant, while the new is careful and scientific.

It is not a tyranny of niggardliness. It is very far removed from parsimony. The wages paid to employees are probably the highest wages paid to industrial employees anywhere in the world. The equipment is the best that can be bought or made. The horses in the delivery service, for instance, are bought young and used for three or four years only, except in rare cases. The stables are rigorously inspected and the feed is carefully watched and checked. The harness, the wagons, the tanks must be always in perfect condition.

This seems as true of every other department as it is of this. The men, from the executive heads of departments to the cleaner of the refinery yard, receive good salaries for their labor. One may look a long time before he will find a Standard Oil Company employee who has lost wages through sickness; but one may find many whose doctors' bills have been paid through some serious illness. One may go and visit old men living to-day on Standard Oil Company pensions; for if a man has worked for this company for twenty years he may retire at sixty, if he please, and draw half-pay for five years and quarter-pay until death. In these matters, the rule of the company seems to be based not on the law of the land so much as on the law of common humanity.

This is not parsimony. To get efficiency, the company is at times liberal, and even lavish, in its expenditure. Where the strictest economy works to the same end, no miser in the world is more careful. It is not true that an unlucky clerk who wastes a dollar's worth of pins or pencils is summarily dismissed. It is true that the little drops of solder that fall from the cans in the factories are gathered up and used again. It is true also that the sweepings of the yards are sifted before they are thrown away. I found no Standard Oil Company man ashamed to admit that the little boxes in which the tin comes from England are sold to florists in the cities, or used as fuel for the fires. I found them proud of these details. They are more prone to boast about a thousand dollars saved in some nook or corner of this enterprise than about a fifty-thousand dollar order for oil won in the open markets of the world.

ELIMINATING MIDDLEMEN

The whole system is a reaction from the early days of the oil industry. When the Rockefeller company was first brought together in Cleveland in 1865, the oil business was conducted with an utter recklessness of costs. A hundred middlemen fed fat upon it. One made a fortune manufacturing glue for the barrels; another grew rich devising acids for the refining; another made barrels; another sold them to the refiners at retail; many bought for a song the residuum of the stills and worked it over at great profit into merchantable products; and an army of money-lenders grew purse-proud on the revenues gained from lending money at ruinous rates to the men who refined and sold oil. Few had working capital of their own, and most were willing to pay any rates in order to get money in the hour of need.

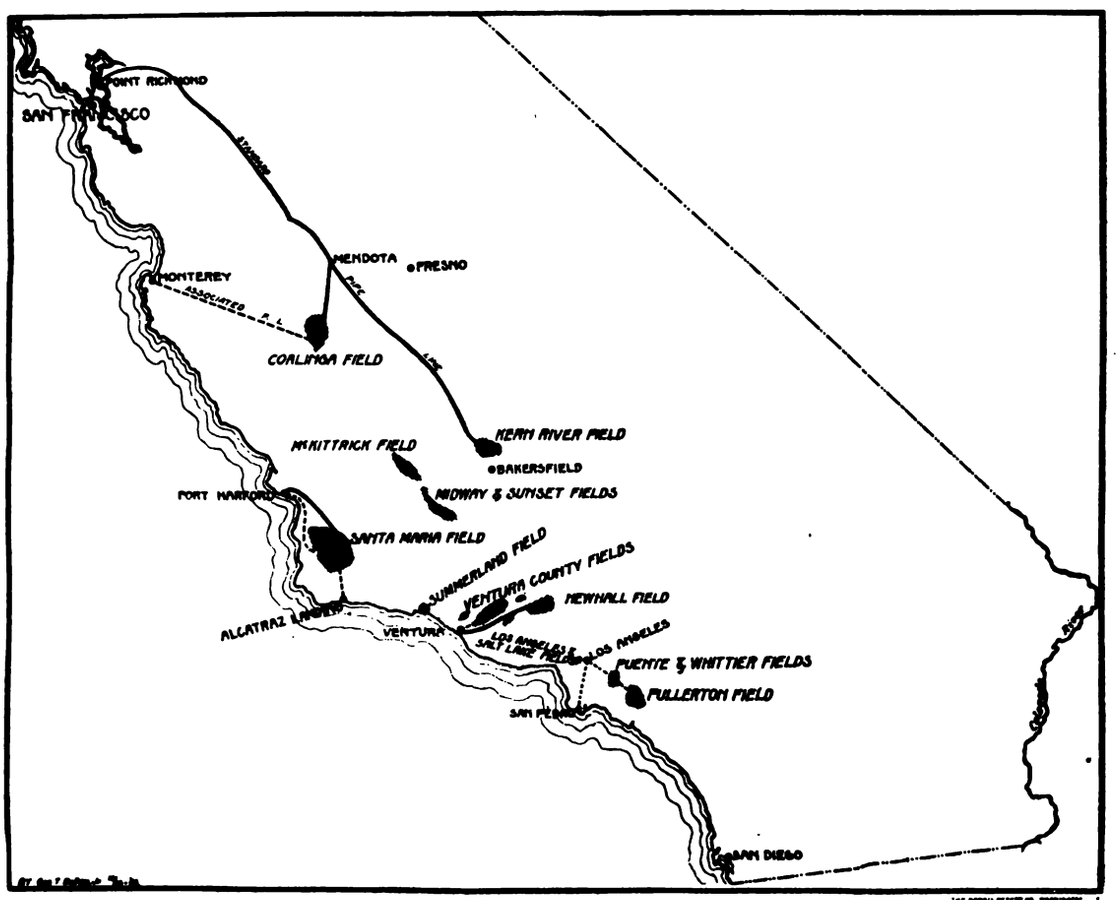
As the head of a private firm, Mr. Rockefeller worked for five years under these circum-

stances. He wasted less than most, even at the outset. Mr. Andrews, his first partner in the oil business, spent his time devising methods to save money in refining He began to use the residuum, making it over by himself, and thus eliminating one middleman. He bought less coal for his fires, burning the coke that lies in the bottom of the exhausted still. The firm began to make barrels, to manufacture glue, acids, boxes, and a dozen other things that no other refiner then deemed worth while.

The money problem pressed hard on their early struggle for independence. To solve it, the first Standard Oil Company was formed, on January 10, 1870. It brought together with a capital of $1,000,000 two or three closely related firms in Cleveland. That seemed at first sufficient to safeguard the little industry against the danger of borrowing at ruinous rates in times of stress.

THE BEGINNING OF THE COMPANY

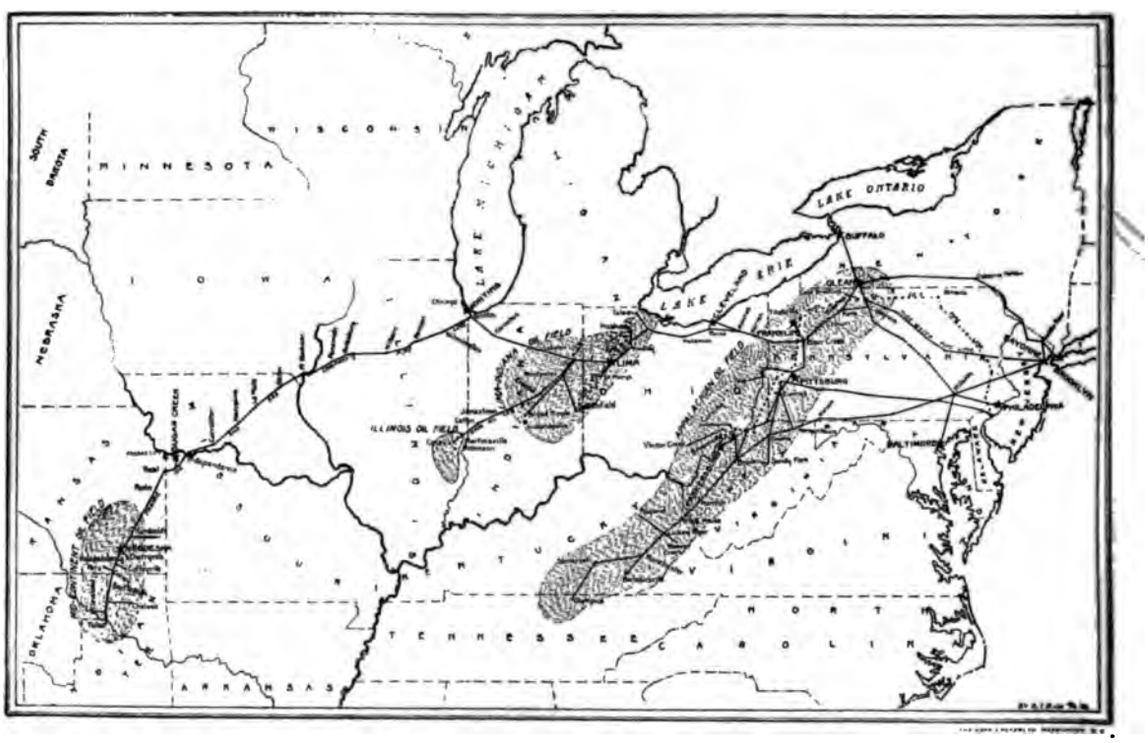
More important, that consolidation brought together the nucleus of the army that was destined to conquer the oil-world. The strong men in it were Mr. John D. Rockefeller, Mr. William Rockefeller, and Mr. H. M. Flagler. They were pretty well known in the oil regions even then as strong, aggressive, skilful refiners and marketers of oil. No one, of course, dreamed that they would ever dominate the oil business, as they soon did, but it was known that they had to be reckoned with. They were shrewd and quick. Anything they did, they did suddenly, without any brass-band accompaniment. They talked little. If anyone ever got the better



THE CALIFORNIA PIPE-LINE

The main line from the Kern River fields to Point Richmond carries the bulk of the California oil. A large proportion of the oil goes to the Orient, in bulk and in cases

of them, whether it was some competitor buying crude oil at the wells, or some refiner bidding for rebates out of Cleveland, he always knew that he could not hold his advantage very long. Rebates in those days were not only legal but were also usual. Every trader and manufacturer expected them in proportion to the tonnage he gave the railroads, and in most cases he got them, when his shipments were of sufficient importance to make it worth the while of the railroad to grant them.



PIPE-LINE, REFINERIES, AND OILFIELDS

The solid black lines indicate the main pipe-lines of the Standard Oil and its affiliated companies. The broken line, running from Brown's Mill, O., to Marcus Hook, is the Pure Oil Company pipe, independent. Stars indicate the Standard refineries, shaded portions the oilfields. The map is taken from the Government report, signed by Mr. Herbert Knox Smith

MR. ROCKEFELLER AND MR. FLAGLER

His comrades told me that everyone in the oil trade liked Mr. William Rockefeller. He established the Standard selling agency on the docks of New York, and sold his oil in hot but good-natured rivalry with the Pratts and other big firms of New York. He was young, pleasant to meet, quick at a bargain. He always made friends even in the ranks of his hottest competitors. He was good-natured, but not at all soft. In the markets he often did as all other oil men did, namely, gave away his oil below cost; but he figured better than most how long it would take money to come back in the form of wider markets, more friends, or collateral profits of some sort. To-day he is busy with many interests, and cannot be considered one of the active directors of the Standard Oil Company. He has not actually laid down the work, like his brother, but his financial work is now advisory rather than executive.

Mr. Flagler seemed to be very prominent in every function of the company in the early days. He never studied law, but Mr. Archbold told me that he is one of the best natural lawyers in business. In those days, when big and important contracts had to be made offhand, as it were, he was the right man to make them. He could make out a contract, or paper of any sort, as skilfully as though he had been trained in the law. As a merchant, he could buy and sell closer than nine out of ten of the specialists in that branch of

the business. He knew refining as well as any of the Cleveland people. He was almost as careful as Mr. John D. Rockefeller himself when it came to the spending of money, and his courage never seemed to fail in a moment of stress or crisis. The risks of business were no new thing to him even before he joined the Rockefeller forces in Cleveland. He was born in Canandaigua, N. Y., in 1830, and served first as a clerk in a country store. His first big independent venture was in Michigan, where he joined the rush for salt. He came to the oil business with hard experience and with a little money, which went a long distance in those days, just after the war.

THE BASIC PRINCIPLE

These were men born to business success. It may have been accident that brought them together in the oil business; but it certainly was no accident that they succeeded where other men had failed. I have studied, so far as I could, the whole history of these men. One finds, from their small beginning as refiners of oil in Cleveland, through the long years of trouble, hot competition, business intrigue, railroad plots, and legal complications, even to the present time, one cardinal basic principle upon which they seem to have united, and upon which, undoubtedly, they built the structure of their success.

That principle was, and is to-day, the cutting out of waste. The Standard Oil and all the minor companies in which these men and their followers have been interested proceed upon the basic principle that every weak link in the chain must be taken out and a stronger put in its place. I do not propose, in this article, to trace the history of these men, or of the Standard Oil. That task has been done, more or less justly, by individual writers and by Government commissioners.

The method of the Rockefellers and their partners in building up their great industry can, perhaps, be better understood without much history. For the method undoubtedly was a purely personal method. Once other interests attempted to form a combination in the petroleum trade, based upon the right of conquest, the right of might, if the phrase is permissible. That plan, the South Improvement Company plan, fell through before it even came to accomplishment. Every director of the Standard to whom I talked about it condemned this plan in unequivocal language.

The Rockefeller system seems to have been utterly different. Many of the men who most hotly opposed the South Improvement Company came to do business in more or less intimate relationship with the Standard Oil. Mr. John D. Archbold, in later years a strong believer in the Standard method, and now a vice-president of the company, was one of the most bitter opponents of the South Improvement Company plan.

WHERE LEADERS CAME FROM

The men who have been partners with the Rockefellers and Mr. Flagler in recent years, if we may use that term to define the business relationship that has held them together, were nearly all oil-men before they came into friendly relationship with the Standard and its people. Mr. Charles Lockhart, for instance, who died in Pittsburg four years ago leaving a large fortune, was a refiner of Appalachian oil years before Mr. Rockefeller entered the trade. The Wardens, of Philadelphia, were an old and well established oil firm, perhaps the strongest in that city. Mr. Charles Pratt, of New York, was a veteran of the trade in 1874, when his interests drew him to the Cleveland refiners. His plant was not the largest in New York harbor, but it was the acme of efficiency, and able to hold its own in all the markets of the world.

The oil business of that day was not nearly as great as it is to-day; but the principle was the same. Men took oil from the wells, carried it to convenient refining points, then marketed the products at home and abroad. Men came to be known as the leaders in definite branches; one as the most skilful exporter; one as extremely skilful in making by-products; another as the owner of the plant that made barrels, etc., at the lowest price. These men achieved success, and became powerful individual factors in the trade.

These men, Lockhart, Warden, Pratt, Rogers, Frew, and a dozen other industrial leaders of their day, in the course of time came to recognize the same truth that the Rockefellers had recognized earlier, and upon which they had lifted themselves from the level of petty oil traders in 1865 to the height of business prosperity in 1870. In other words, they saw that waste had to be cut out before the oil trade could become a sound, staple industry and take its proper place in the nation's trade roster.

By far the greatest factor of waste was, and is, beyond any reasonable doubt, lack of co-operation. So long as the bigger plants in the trade stood in the position of enemies, so long that steady waste had to continue. A dozen selling agencies did the work that one might have done. A hundred little refineries, dotted all over the oil regions, duplicated one another's plant, struggled against the ever-increasing burden of manufacturing cost and selling cost, wasted each one its thousands of dollars a year to the profit of no man save the middle-man and the business parasite. Even the biggest plants in the country, grown strong as the prosperous years piled up, were weak to meet possible lean years. So far as my questions have been able to recall the days prior to 1875, there was no man in the oil-trade who slept soundly at night. The industry was a shifting, treacherous, speculative industry. in which men grew rich slowly, then poor over night.

The very strongest men in the trade felt the hazard of their enterprise the most keenly. They analyzed it, as wise men will. They recognized that lack of proper business organization alone prevented it from gaining solidity, from putting off as it were, its gambling character. When a man came and put in words the thoughts that they themselves had always entertained concerning the oil-trade, and pointed out the way to better things, there was not one of them who was not keen to follow.

The group of oil men that gathered about Mr. John D. Rockefeller in the ten years from 1870 to 1880 gathered to that centre, then, because they recognized that he was the man with the idea that was to revolutionize the petroleum industry. He stood for the cutting out of the very weaknesses that they themselves had recognized from the start, but tolerated because they thought they must. The Standard Oil, even though in the first half of the decade it was but a small company, struggling for trade and for money to carry on that trade, had impressed all men who saw it at work as an efficient, powerful, forceful commercial engine. It had refined and sold oil at a profit from the very beginning, even in the face of open war in the oil regions. It had a way of winning in commerce that commanded respect.

Practically, the present board of directors of the Standard Oil Company of New Jersey is descended from these pioneers of the oil business who came to be business associates of the Standard Oil and its chief in the decade that ended in 1880.

There are no "dummy directors" on this board of the Standard Oil Company of New Jersey. It is not worth while for any man to go to the meetings unless he wants to talk business and is prepared to take a part in the oil business. There is no perfunctory business. It is "oil," and nothing else. One hears from time to time that the dividends are taken to represent "market attitude." These dividends are declared on the fifteenth of February, May, August, and November. According to Mr. Archbold, they represent nothing in the world but the amount of money properly available for dividends. "Market attitude" is never discussed at a meeting, except the market attitude in oil. That is a frequent topic of discussion, and sometimes the discussion is warm.

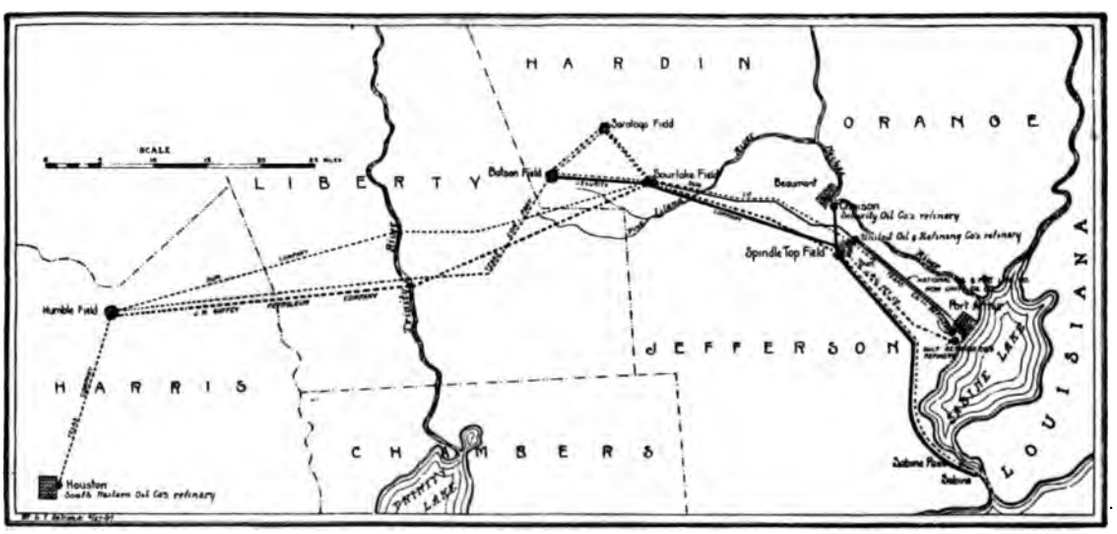
UNITING ALL KINDS OF ACTIVITIES

The evolution of the present company from the beginnings made in 1870 by Mr. Rockefeller and his friends at Cleveland is pretty well known. The meaning of it may be written in few words. Its aim was economy of operation, and such control over the transportation and refining and marketing of oil as would best conduce to such economy, and the full and complete operation of such control. The Standard people bought, and paid for, dozens of small refineries. Some are operated to-day. Many were torn down and abandoned. If a refinery was so located as to be extravagant in operation, was far from the market, or far out of the line of direct transportation, or left behind as the oil production moved, there was no hesitation in letting it go. Its stills might be moved from northern Pennsylvania into Illinois, or elsewhere. Its miles of pipe might go to any one of a thousand points. Its goodwill, if it had any, came to the Standard Oil Company, and became part of it.

The growth of the pipe-line system went step by step with the growth of trade. The lines were pushed wherever needed. The company did not invent pipe-lines. They were used in the oilfields before Mr. Rockefeller knew anything about oil. He simply took the idea and developed it. It served to overcome the bulk of the troubles arising out of freight delays, shortage of equipment, and

other causes. It was one of the greatest and most far-reaching methods of the cheapening of oil production.

To-day, progress continues along the same lines. The Standard Oil Company still struggles for economy, knowing that to-morrow it must meet again its rivals in all the markets of the world; knowing, too, that they are profiting by its experience, that they have methods no less skilful than its own. There are few secrets in the oil trade. The Standard Oil Company knows that every step it takes, reach conclusions of some commercial importance. Judging from what one may learn in conversation, the gatherings are very informal, mere discussions of small routine affairs such as the members of most firms discuss over the lunch table, or in minor conferences from time to time. There are a thousand little details that come up for settlement, the minor matters that in a firm or partnership are handled personally by some responsible person, but in a corporation must receive attention from some committee or organization



THE TEXAS PIPE-LINES
In Texas to-day, the Standard Oil Company has no interest

though it may have required twenty years to get ready for it, may be taken also by its rivals in foreign fields within the next six months. It can win only by being forehanded.

The organization of the company, therefore, has to be compact, efficient, swift of action. The company must be in a position to consider on the moment, and to bring to that consideration the best brains it can command.

And so, every day in the year except Sundays and holidays, there is a gathering of oil men at 26 Broadway. It seems to consist of the practical, active men in the Standard Oil Company organization. Just what they discuss or do, I cannot say. I know that they hear all the news of the day in oil. They receive voluminous reports on the exports, the marketing, the production, and the refining of oil. They watch the world at large, the progress of a convention in Russia, the production of a little oil-field in Pennsylvania. They talk of ships, and men, and money. They debate, and duly constituted. In most big corporations, the executive committee meets each week to attend to such small matters; and the directors meet once a month, or by special call, to take up greater matters, and to discuss briefly the things the executive committee has done. As I see it, the daily gathering at 26 Broadway does the work usually left to an executive committee, and does it better, because of the daily meeting.

The world at large understands that the directors of this company receive reports from a host of "spies" now in the employ of the oil companies, but paid by the Standard Oil Company for information. Mr. Archbold denies it. He told me that the Standard Oil Company does not pay any money to any man in the employ of any of its rivals, either here or abroad, for this or any other purpose. He adds that it gets all the information it can get legitimately about the business of its rivals. It wants to know of any improvement in their methods. It watches their marketing

as closely as they watch its. It receives from many sources much news concerning these matters; but not one dollar goes to the payment of men who could be called "spies."

It is well to say, in passing, that Mr. John D. Rockefeller has not been active in the business of Standard Oil for thirteen years past. Once last summer he visited 26 Broadway, called around to see dozens of his old friends who work there, then went away, and has not, at this writing, returned. He has not been at a meeting of the board of directors in eight years. He has not been in the building, except for the visit mentioned, within five years.

But the spirit that he put into the business remains. It is the engine that runs the machinery. To illustrate, I found the same lasting kind of attachments throughout the business organization that made possible the close business friendship that has existed for thirty years or more between Mr. John D. Rockefeller and his group of allies, Messrs. Flagler, Archbold, Pratt, Lockhart, and the rest. I found, as I went through the building, dozens of men holding positions of trust, heads of departments drawing large salaries, men active and influential in the important functions of the company. I did not find one of them who is not heart and soul with the company. Nine out of ten are stockholders who have voluntarily invested the savings of their labor in the securities of the company for which they work.

POWER, PROMOTION, AND EMPLOYEES

The men are promoted from the bottom up. In these days, few people come into the organization except as boys, beginning at low salaries, advancing as they deserve advancement. If they are not efficient, they go out quickly. If they are efficient, nearly all of them stay. It is astonishing how few leave to go to other companies in the same or any other business. The phrase "Few die and none resign" is current throughout the organization. There is no limit either to possible income or to possible rise in position or power. There are not many titles around the Standard Oil Company. There are many men of no titles who make larger incomes, enjoy larger responsibilities, and find a much larger scope than almost any officers of any other corporations in this country. Many of them who have authority are old in the service of the company. Many of them were oil men before they came to the company. In the old days, for instance, all the foreign selling was done through commission merchants in New York and at other export points. In the process of eliminating the middlemen, the Standard Oil Company looked over the field and chose the men who seemed most capable and who commanded the largest part of the several foreign fields. From that source came many of the men who are to-day handling the business in foreign lands.

In talking to the men of the company, I had in mind at all times the question whether the salaried men were allowed any initiative, or were merely part of a perfectly running machine. I found them men of broad intelligence for the most part. The heads of important departments, men without titles but of great importance in the organization, seemed at least the equals in intelligence, independence, initiative, and personal power of any officials of great corporations whom I have met.

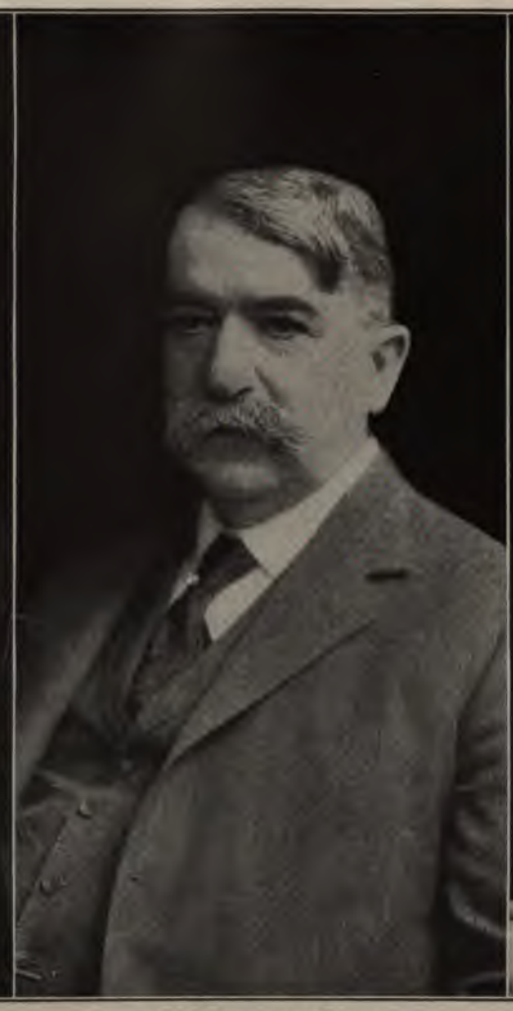
The *esprit de corps* is surprising. They are not colorless clerks, obeying orders from headquarters, and never daring to protest, or suggest anything new; but broad business men, commanding huge responsibilities, wielding immense power. Without exception, I found them wrapped up in the Standard Oil, loyal to the last degree. One of the heads of departments told me that almost every man who has been long in the service of the company has put his savings in the stocks; and he volunteered the information that some of the stock he owns cost over $700 a share. These men have constantly before them the possibility that some day they will join the executive forces, the "inner circle," taking the places of the men who lay down their burden.

"For you know," said he, "the Standard is loyal to its men. They have never brought men from outside to put them ahead of the men who work along in the inside. They don't give us titles and honors as we go along, but they pay us better salaries than any other corporation pays; and we know that when they need in the board such knowledge as we have they will call on us to supply it, and not get it from outside."

That these men on salary have plenty of initiative was apparent from the way they talked. I found, for instance, that such affairs as the distribution of naphtha and gasolene in New York City — no light task — lay almost entirely

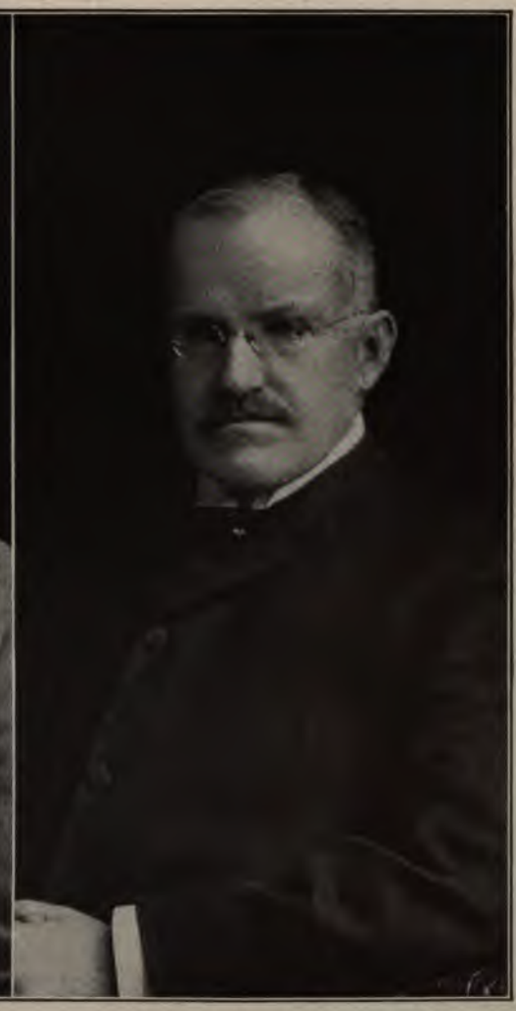
MR. JAMES A. MOFFETT

Mr. Moffett, president of the Standard Oil Company of Indiana, is a practical refiner, with most of his work at Whiting, Ind.



MR. M. F. ELLIOTT

Mr. Elliott, who made his reputation fighting the Standard Oil Company in Western Pennsylvania, is now head of its legal forces



MR. WESLEY H. TILFORD

Elected vice-president of the Standard Oil Company of New Jersey in June 1908, having formerly been treasurer

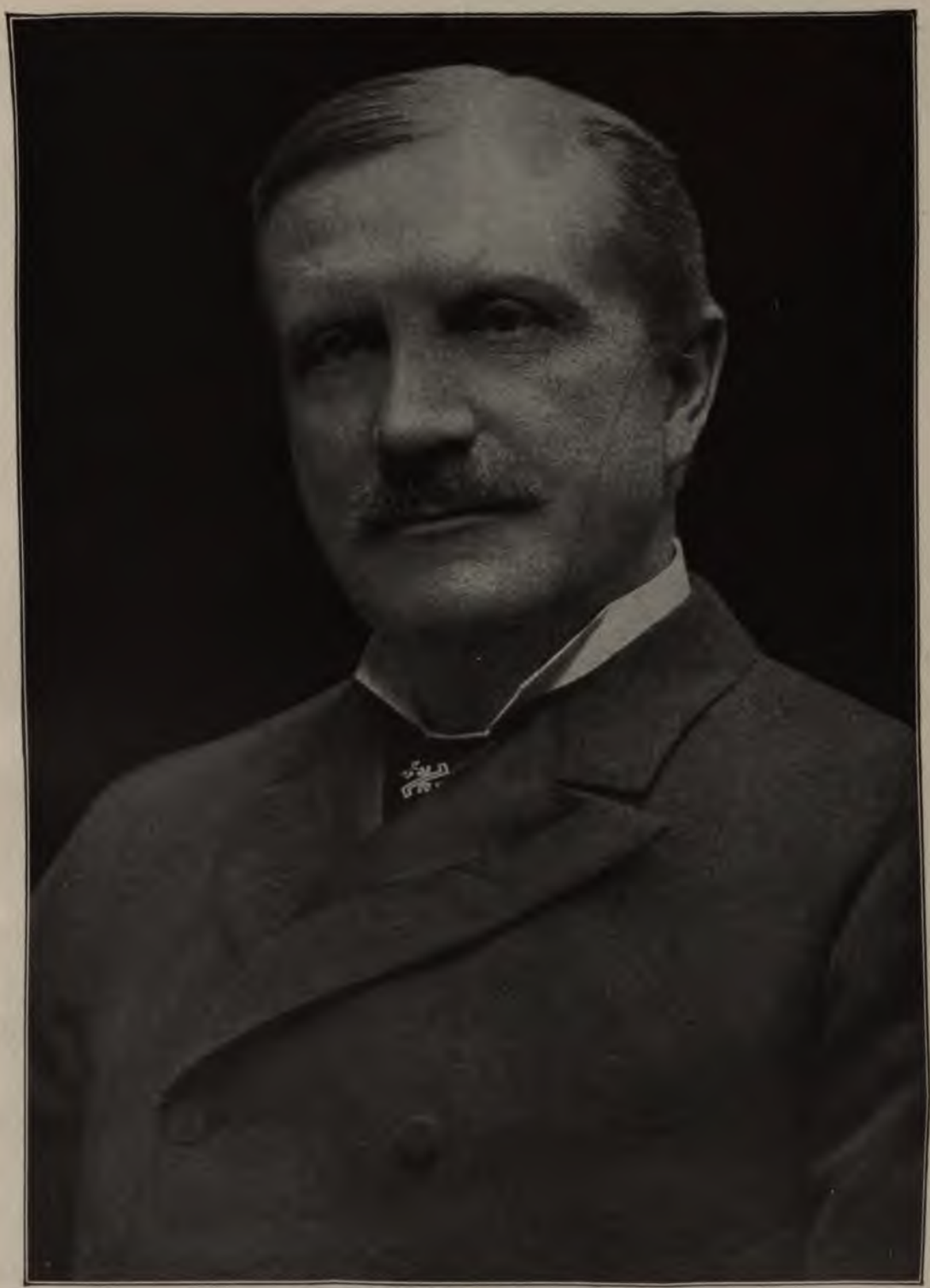
THE FIRST OIL-WELL
This old-fashioned derrick covers the famous "Drake Well," opened on Oil Creek, near Titusville, Pa., in 1859

within the jurisdiction of a salaried man; that the whole marketing of oil and its products in New York State is dominated by one such man; that innovations like the establishment of gasolene stations all around Long Island Sound, or along the main automobile roads of the country, are begun and carried on practically in his command; and even that the use of storage tanks and tank-wagons for distribution while not invented or adapted by any one man, was developed in the service of the Standard Oil, both in the United States and in Europe, largely through the initiative of a few men on salary. The details of transportation, a very important item in the business, appear to have been largely worked out by subordinates.

A REVOLUTION IN DISTRIBUTION

The tank-wagon method of distribution is worth noting, for it is one of the greatest and most successful changes in the oil business. Prior to 1875 there were only a few tank-wagons in the country. The idea originated

OIL-WELLS UNDER THE SEA
In the California fields, the strata of oil-bearing rock runs out a great distance under the sea. The wells are sunk through water and sand and production goes on just as on land



MR. WILLIAM ROCKEFELLER

Mr. Rockefeller is president of the Standard Oil Company of New York. His work to-day is advisory

in the Southwest. By 1882 the Standard Oil Company had only ten stations, and a few dozen wagons, operating in New York and New England. The dealers had to buy in barrels of fifty-two gallons, or not at all. At first it looked as though the cost of distribution by tank-wagons would prohibit the method, but they kept at it until they had given it a thorough trial. The results surprised even the men of the company.

The saving comes in various ways. Perhaps the most important is in the cost of barrels and in freight. Less important, but quite important in the aggregate, is the saving from contamination through soft glue in the barrels and from necessary leakage. The fire risk, too, is not quite as great. The dealer now pays cash for his five or six gallons, whereas he frequently had to get his fifty-two gallons delivery on credit, and wait until he had sold it before he paid for it. The result was the entire reorganization of the selling system, so that to-day there are more than 500 stations in New York and New England alone, 3000 in the United States, and more than 5000 abroad around the world.

The cutting out of the intermediate profits is part of the gospel of the Standard Oil Company. To that end, millions of dollars have been spent

PIPE-CLEANERS

After a "run" of a certain grade of crude oil through the pipes, one of these "cleaners" is driven through ahead of the next "run"

in the past and more will be spent in the future. There are still many parts of the great machine that are supplied by outside dealers, but it is only because it has been found that to-day those parts cannot be manufactured as profitably as they can be bought. For instance, the company owns or charters a fleet of nearly 225 vessels of all sorts. It builds none of them itself. It tried it once with two barges, but found them far more costly than the barges built outside and they were not successful for other reasons as well. Therefore it continues to pay the builders' profits on ships. It looks as though it would continue to do so for many

LAYING A PIPE-LINE

The pipes are laid on the surface except where traffic or agriculture makes it impossible. They lie along the bottoms of rivers, and across arms of the sea. The pipe-line system is the real strength of the Standard Oil Company

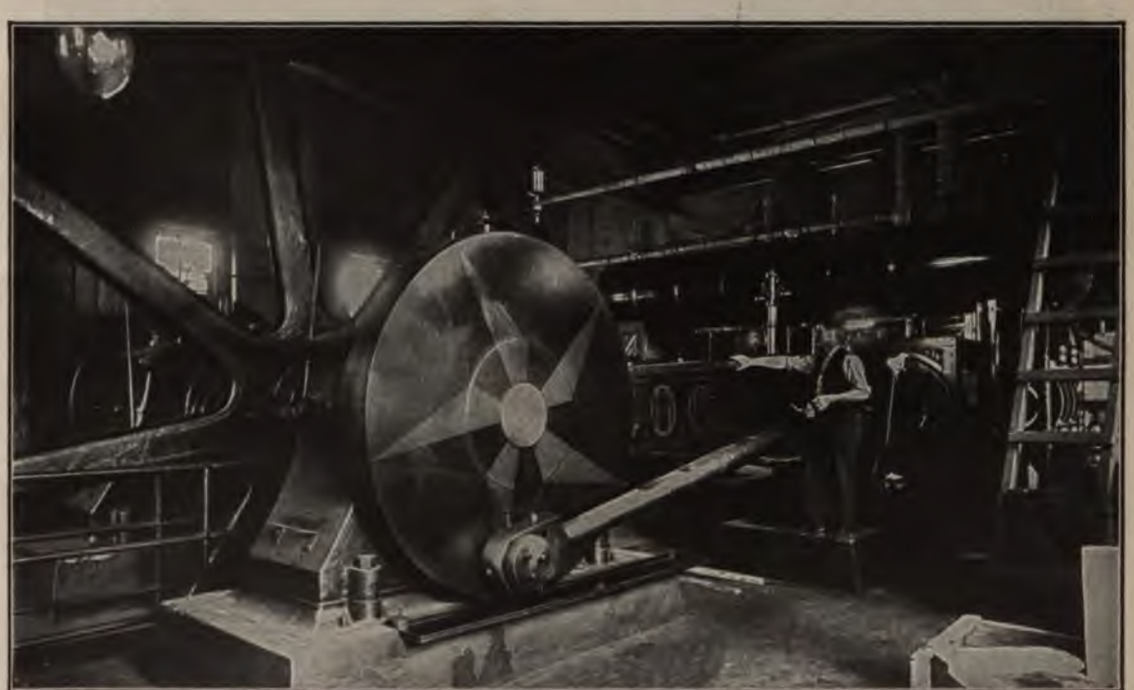
THE BIGGEST PUMP WORKS ON EARTH

As the use of pumps spread, the Standard Oil Company began to manufacture them. The main pump plant at Oil City, Pa., shown in the picture, makes everything from the small well-pump to the huge gas-pump that drives gas from the wells to light the cities of Indiana

not expected to continue to use even as many barrels as are used to-day, and the company does not care to establish plants for an industry that may not be permanent.

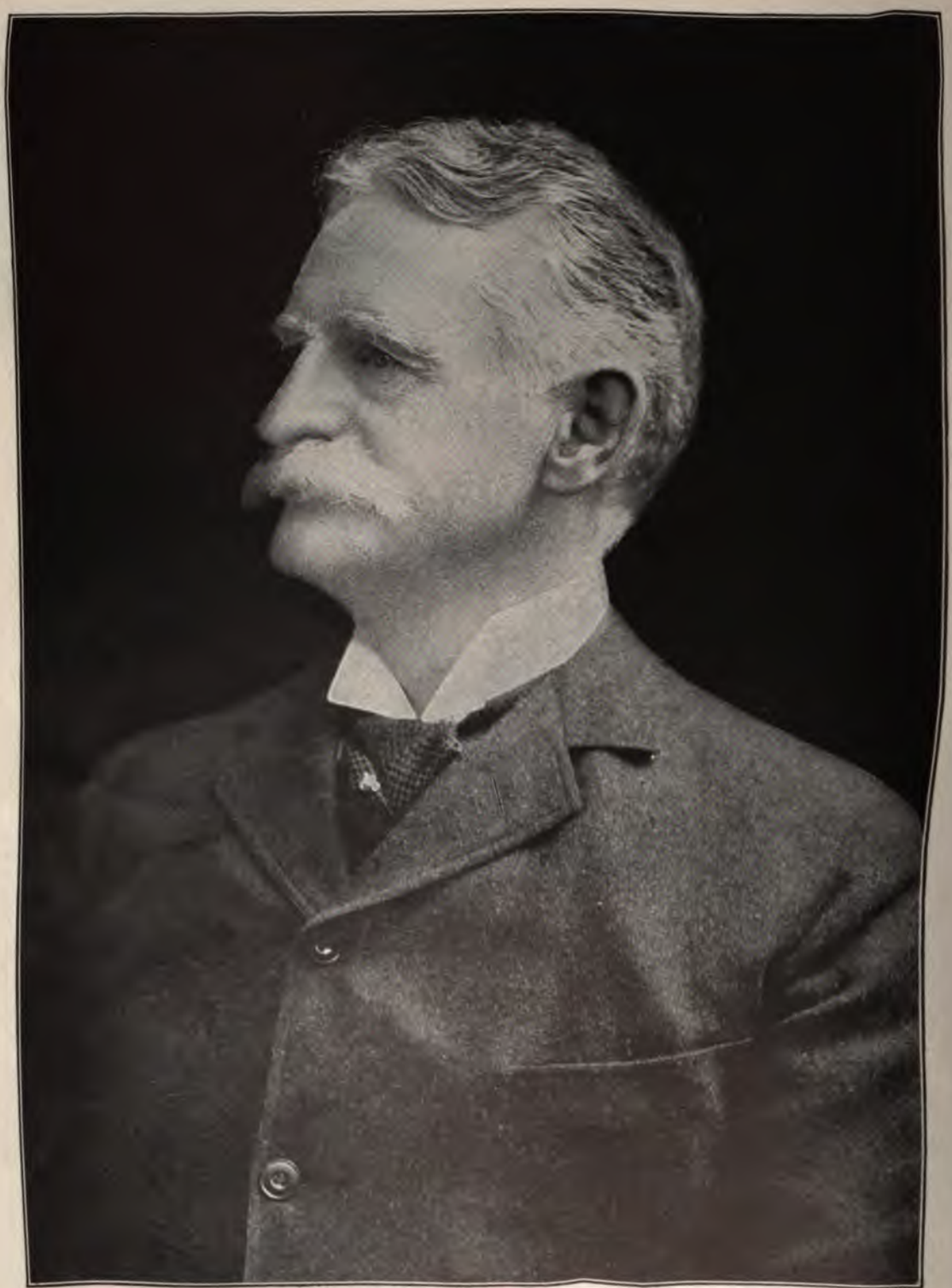
THE MANY CORRELATED INDUSTRIES

The business of the company is the production, transportation, refining, and marketing of petroleum and its products, including natural gas. It tries to do everything that is properly tributary to that industry. It manufactures lamps, wicks, pumps, barrels, cans, boxes, tanks, wagons, and tank cars. The pump works at Oil City, Pa., is probably the biggest plant of the sort in the world. There they make all sorts of oil pumps, from the small



A LARGE PUMP AT WORK

In the oil business pumps are now used at the wells, on the pipe lines, in loading refined oil, and in raising water for use in the refineries. The picture shows the largest pump in the largest refinery, at Bayonne, N. J.



MR. H. H. ROGERS

Photographed by Aimé Dupont

Mr. Rogers is a veteran in the oil business, having pioneered in Pennsylvania, refined in Brooklyn before the Standard Oil Company was formed, and served with it since Charles Pratt & Co. became part of it. He is the head of the National Transit Company, which operates pipe-lines

THE HEADQUARTERS OF THE STANDARD OIL COMPANY

The square tower in the centre of the picture is the distinctive feature of 26 Broadway, owned and occupied by the Standard Oil Company. In this building are the offices of nearly all the men most prominent in the oil business of the United States

A STAVE YARD

The company manufactures its own barrels, from wood cut from its own forests

GLUE POTS

The making of the glue used in the manufacture of barrels is one of the company's savings in manufacturing expense

is Mr. John D. Archbold, one of the vice-presidents. Nearly forty years ago, a young impetuous fighter, he made his mark in the oil world as one of the most aggressive opponents of the South Improvement Company. Later, he joined the Standard Oil Company, and has been of recent years prominent in all the larger accomplishments in all departments, from production to export. He came to the Standard when strong men were eagerly sought.

IN THE BOX FACTORY

Each "case" holds two 5-gallon tins of oil. The machine makes the boxes, fitting, nailing, and finishing a box in about two minutes

THE NEW METHOD

The largest pumping station, at Bear Creek, Pa. The crude oil is pumped in large pipes from the oilfields to the refineries

THE OLD METHOD

In the early days, crude oil was barreled and floated in barges to the refineries. The picture shows barges on the Allegheny River

From that time, he has been a trusted Standard officer. Like most of the company's officers, he works hard. One may find him in the plain, unadorned office almost every day, working away as though he liked it. That is the characteristic of the Standard men; they take few holidays and brief at that.

The offices at 26 Broadway deserve notice. I know few large executive offices of corporations that are plainer, or barer of ostentation. The clean kalsomined walls are devoid of paintings, frescoes, anything at all. In the marine department we find photographs of ships, big and little, with the place of honor given, perhaps, to an ugly but useful barge. Mr. Archbold's outside office is decorated, if we may use the phrase, with old pictures of some refineries, about as unlovely a subject as he could find.

There are no Oriental rugs, no big mahogany desks, no precious chairs and cases such as one may find in almost any mining company office, or broker's office over in Wall Street. Instead, the place has plain oak desks, flat tables of severe design, useful if not beautiful chairs. It is a place designed for use, not beauty. Up in the top story is a big lunch room, where daily the big and little gather together to eat. Here is democracy at its simplest. Here are no iron-clad conventions; the veterans of the trade and the men who are working their way from the ranks as the veterans worked before them sit down together to the same fare. I do not know of what particular value the lunch room may be to the company. Perhaps some time is saved; perhaps it has helped to create and foster the deep, admirable spirit of *cameraderie* that I found prevalent throughout the system. I do know, because the officers have told me, that the company would not be without it.

(The third article of this series will deal in some detail with the refining, producing, and local marketing of oil. The risks of the business will also be outlined.)

THE TYPICAL STANDARD OIL COMPANY TUG

Hundreds of tugs, marked with the big white capital S, handle the Standard Oil Company's lighterage business in all the principal seaports of the world

THE WOMAN'S DORMITORY OF CHICAGO UNIVERSITY

Photograph copyright, 1905, by J. E. McGue, Cleveland, O.

SOME IMPRESSIONS OF JOHN D. ROCKEFELLER

THE POPULAR JUDGMENT AND MOB OPINION—THE OTHER SIDE OF SOME CURRENT STORIES—THE MAN'S APPEARANCE, MANNER, HABIT OF LIFE, AND PHILOSOPHY—HIS GENIUS AS GREAT FOR GIVING AS FOR ACQUIRING

BY

F. N. DOUBLEDAY

NEARLY a year ago, I met by chance a gentleman who told a story favorable to Mr. John D. Rockefeller and his partners. This was so great a novelty that it excited my strongest interest and I was astonished to learn that this man had been for years a competitor of the great oil company and yet remained exceedingly prosperous; further than this, that he regarded the Standard Oil Company as a worthy and honest rival, that its competition was intelligent instead of the reverse, that the managers looked upon things in a broad-minded way instead of a mean and narrow way, and, in short, that the people of

FOREST HILLS
Mr. Rockefeller's home at Cleveland

THE OLD HOUSE AT POCANTICO, N. Y.

the country ought to be proud of what Mr. Rockefeller and his great company had accomplished all over the world.

Naturally, such statements aroused my deepest interest, for my previous impressions of Mr. Rockefeller had been derived from what I had read; and all that I had read about him was, so far as I can remember, to his discredit. Investigation proved that this gentleman was not a hireling of the octopus, that he was well known and respected and that he meant exactly what he said.

Later, and by another chance, I met Mr. Rockefeller, and under such circumstances that the way opened to long talks with him. I confess I found him exactly the reverse of what my reading had led me to expect, and my experience created the desire to try to convey the impression I had received to others.

THE NEW HOUSE AT POCANTICO
The first house which Mr. Rockefeller has had built

TRANSPLANTED TREES AT POCANTICO
In his nurseries Mr. Rockefeller has set out many thousand trees at a time, to be used later in transplanting schemes at Pocantico and Lakewood, N. J. Some of the trees moved are full grown

Instead of a proud and arrogant person, Mr. Rockefeller seemed modest and friendly. It was exceedingly difficult to adjust the notion

MR. ROCKEFELLER'S NEW YORK HOME

Photograph copyright, 1905, by J. E. McGee, Cleveland, O.

MR. ROCKEFELLER ON HIS OWN LINKS AT CLEVELAND

Golf is his chief recreation and he plays a good game

an abundance of this world's goods, standing as a large figure in the public eye, and at the same time having the feelings and emotions common to all the other members of the human family.

THE OPINION OF THE CROWD

It is fair to remember that Mr. Rockefeller has been tried only in the court of popular magazine and newspaper opinion. He has never appeared even in that court in his own defense; he has had no authorized advocate to represent him; but it would have made no difference. Dreyfus did appear for himself, he had powerful attorneys; but the crowd proclaimed him guilty before, during, and after the trial, and that settled it until the heat of passion had died away. It took several years for the public mind to regain the normal, during which time Dreyfus lived on Devil's Island.

Le Bon, whose ideas, expressed in "The Crowd: A Study of the Popular Mind," have now been widely accepted, has this to say in the chapter on "The Opinions and the Beliefs of Crowds":

"In enumerating the factors capable of making an impression on the minds of crowds all mention of reason might be dispensed with, were it not necessary to point out the negative value of its influence.

"We have already shown that crowds are not to be influenced by reasoning, and can only comprehend rough-and-ready associations of ideas. The orators who know how to make an impression upon them always appeal in consequence to their sentiments and never to their reason. The laws of logic have no action on crowds."

It is not to be doubted that M. Le Bon states what is profoundly true; and the popular judgment of Mr. Rockefeller has been a mob judgment. But there are many men of business prominence and of the highest standing in the scientific and educational world who never shared the popular opinion of him; and, as the crowd-opinion loses its hold, there may be some who will care to read a first-hand impression of the man by one who had accepted all the printed statements at their face value.

The difference between the impression which is derived from actual contact with Mr. Rockefeller and that which is produced by reading some of the published accounts of him is illustrated by the following extract from a letter written by a woman who, before she had met him, had entertained so violent a prejudice against him that she had said that she "would not accept his tainted money even to save a starving child":

"There came forward a courteous old gentleman whose face, to my astonishment, showed no trace of the cruel marauding hawk nor yet of the crafty fox, such as I had confidently expected to see limned on 'the certain index of the soul' of this notorious leader of the gang of 'predatory rich.' The face is calm, thoughtful, but ready to break into a smile at a passing witticism, and illumined by very blue, serene eyes that neither wink nor rove as a wicked man's should while conversation proceeds. But they look you straight through. I watch Mr. Rockefeller narrowly day after day, determined to catch him off his guard and discover some small action, some careless remark, that must reveal the wolf beneath the sheep's clothing. We talk over his past history with the perfect candor, directness, and simplicity which he himself heartily invited, walk with him about the golf links, see him with his family at evening, idle with him where he mingles with all sorts and conditions of people in a modest, kindly way.

"The person from whom I got all my prejudices, I am amazed to learn, never met him to speak to. His snubs are all in print. Critics and vilifiers are not to be found in the ranks of those who really know the man, you will please take pains to observe.

"Intensely prejudiced against him as I really was after reading through a long course of abuse, and thanking God that fearless pens had consecrated themselves to saving the youth of America from the worship of Mammon as typified in Mr. Rockefeller, I now confess that every day some fresh evidence convinces me that he has been cruelly wronged. I see many episodes in an entirely new light after relentlessly plying him with questions with the most unblushing frankness. He dodges nothing, answers any query with what seems to me perfect reasonableness. He is very sensitive; anyone who watches his face closely can see that. He and his family have endured untold suffering under their lashings in public, but he does not complain about it. Such a triumph over natural human impulses seems to me greater than gaining all his millions.

"Some time the American people will judge him justly. 'Why, John, they will be building monuments to you when you 've been dead and gone twenty years,' said a sententious friend to him one day. The face of the man quivered a second before it showed the faint ghost of a little smile."

Mr. Rockefeller's early life has been described again and again, and there is no reason to repeat the story or to make the effort to

show that because he is a member of a church-going family and has always been a church-going person, he need not necessarily be, *per se*, a hypocrite. But Mr. Rockefeller's religious training was of the old-fashioned kind, and his church was very important to him. He attended regularly, and he has worked in its interest consistently all his life. For this he has been called a hypocrite, because his enemies have condemned what they have judged to be his iniquitous business morals and assumed that appearing in church was proof of his desire thus to gain public credit to offset public blame. If true, surely this is good cause for the public to take offense. But so far as I can discover, no one has suggested any proof that Mr. Rockefeller goes to church with the desire to attract public attention.

Certainly, the writer of the following paragraph did not gain any such impression:

"We met Mr. Rockefeller at a church for colored people this morning. He seemed to take an immense interest in the sermon, the people, and the singing. To see him take a place in quiet and friendly relationship with this colored church, to sing the hymns, and to appear so unconsciously at home among these very poor people, was a lesson in simplicity to me. The courtesy of the colored people might well be observed. Mr. Rockefeller was not stared at, nor did any one appear to notice his presence more than that of any of the other white visitors who had come to hear a remarkable man preach."

AN EARLY STORY OF MAKING OTHERS GIVE

A characteristic and true story is told of his relations to the little church in Cleveland to which the family belonged when he was scarcely more than a boy. It had a debt of $2,000 — a mortgage held by one of the elders, who became tired of waiting for his money. One Sunday the preacher announced that the church would be sold over the heads of the congregation unless this money could be raised. Young John Rockefeller elected himself to the office of raising the cash. Hurrying to the door, he reached it first and as each member tried to pass out he buttonholed him or her and secured promises for such sums as each could afford to pay. Every cent of the mortgage was raised, but it took a number of months to do it. The church realized that it had a forceful character in its midst; he was elected a trustee when eighteen years old, and that church did good work and made progress in the community.

Mr. Rockefeller had a little book in those days which he called Ledger A, in which he used to set down his petty earnings and his petty gifts. There has been a good deal of fun made of Ledger A, and there may be, from some points of view, an element of humor in a book so naïf and honest as this book was. It told the facts of its keeper's financial happenings and taught the habit of looking financial truth in the face, but the important part that these childish items revealed was that the owner recognized even at that age the duty and pleasure of giving. Mean men may give, but it is not a pleasure with them, and a man's heart cannot be black clear through if he enjoys hearing of other people's troubles only to relieve them, not alone through the usual machinery of organized charity, but personally and through his own machinery and out of his own pocket. These things young Rockefeller did in his boyhood and young manhood, when money was by no means plentiful with him. Fortunately for him, it cannot be said that at that time his purpose was to advertise the oil business.

While we are on the subject of gifts and a man's duty to the public in so far as his material possessions go, I wish I could reproduce here the long talks I have had with Mr. Rockefeller about the art of giving in such a way that it will do some service to humanity. I learned for one thing that, if done conscientiously, it is a time and thought consuming task. To the ordinary mind, one would say that having a force of clerks to look after one's financial interests, the task was simply to tell the cashier to draw a check for so much. If it is really as easy as this, then Mr. Rockefeller is sacrificing his time and effort unnecessarily.

He is not satisfied to give away money only through the broadest channels which lie at one's hand, but he has felt the need of trying to do the task in a more efficient way, and he has what seemed to me some revolutionary ideas on this subject.

HIS ENDOWMENT TO CONQUER DISEASE

Mr. Rockefeller's great success in business was along constructive lines. This reflects the nature of the man. His whole attitude to life is that of a builder. Even his recreations are along constructive lines. One of his chief delights is to build up the large estates which surround his various homes. He spends a large portion of his time in personally planning

out where roads can be built and trees can be planted so as to add to the beauty or utility of the place.

In the same way his philanthropic interests lie in broad, constructive ways. He likes to get at the causes of things and to apply his strength and influence in a creative way. Instead of trying to relieve individual cases of poverty or of suffering, he prefers to try to remove the causes of poverty and suffering. I do not mean that he is indifferent to the needs of individuals in those matters of giving which are purely personal, but he realizes that such giving must necessarily be very limited in its scope and must be confined to those cases where he gives not as a millionaire but as a friend and neighbor. With regard to the exceptional resources which are his — as to which he feels to an unusual degree a sense of trusteeship for his fellow-men — his tendency is to lay the emphasis upon constructive and preventive rather than upon remedial measures. This is particularly well illustrated in his attitude to the problem of human suffering caused by disease. He has given comparatively little to hospitals, but is giving much to help science to make these hospitals more useful. And through scientific research he is contributing his quota to bring about the day when the value of hospitals will be increased a hundredfold.

The spectacle of a human being in pain is one which makes a direct appeal to the sympathies. It is comparatively easy, therefore, to raise money for those instrumentalities which have to do with the direct relief of suffering. Mr. Rockefeller has felt, therefore, that these agencies can safely be left to the care of others. But far more important than the relief of an individual case of sickness is the discovery of its cause and of means of controlling and eliminating disease itself. This is the problem which appeals to him, and as a means to the solution of it he has established the Rockefeller Institute for Medical Research, located in the city of New York, which is the only philanthropy to which he has given his name. This was organized in 1901. Its work consists of the most exhaustive scientific investigations into the nature of disease and the methods of its prevention and cure. Its principal laboratories are located in the city of New York, where it maintains a staff of about twenty-five highly trained experts, and, in addition, it has about fifteen men working in laboratories in various parts of the United States, and two men in foreign countries, all of whom are maintained by grants from the treasury of the Institute.

Of course a great deal of the effort of such an institution is of a character which has no immediate bearing upon the treatment of disease. Before we can hope successfully to cope with disease in its various manifestations, we must know what are its causes, the life history of the hostile organisms which produce it, or the nature of the abnormal processes from which it results. These researches involve some very obscure problems which sometimes take the investigator very far afield, not only into biology, both of the animal and the vegetable world, but also into the sciences of chemistry and physics. At the same time, the ultimate object of the investigations made at the Institute is the relief of human suffering through the conquest of disease.

FINDING A CURE FOR SPINAL MENINGITIS

The work of the Institute has already produced one momentous practical result, and that is the discovery of a cure for epidemic cerebro-spinal meningitis. This has heretofore been one of the most terrible diseases with which humanity is afflicted. In general, about 75 per cent. of all the cases have terminated fatally, and in the majority of those cases which have recovered death would have been preferable, as the patient is left defective if not absolutely imbecile.

As the result of an outbreak in New York City in 1904, Dr. Simon Flexner, who is at the head of the Institute's work, was requested by the Board of Health of the city to serve on a commission for the study of this disease, and accordingly entered upon a series of orderly and prolonged investigations. These have happily resulted in the discovery of a serum and a method of administering it which appear to have furnished at last a means for controlling the disease. The mortality has been reduced to about 25 per cent. instead of 75 per cent., and where the serum can be administered in the early stages of the disease nearly nine out of ten recover; not only do they recover, but the patients are restored to completely normal conditions. The serum is obtained by inoculating a horse, as in the case of the diphtheria antitoxin, and the Institute has placed this serum at the disposal of physicians in various parts of this country and of

Europe where epidemics of the disease have broken out. Returns have already been received from several hundred cases, and the results are so uniform and so good as to lead to the confident hope that this disease is at last under control.

THE BUSINESS LAW IN PHILANTHROPY

Mr. Rockefeller made a vast amount of money in foreseeing the great movements of business. As his power grew, he could do this with better judgment than most men, because he was in closer touch with the great gulf streams of trade. Now he has turned his attention from money-making, and has put this same brain to thinking out problems which affect all the people in a large way.

The way in which Mr. Rockefeller has worked out in his mind this principle of business as applied to giving is characteristic of the man; he thinks and acts along big elemental lines, and always has. Finesse in any form does not appeal to a nature like his, it is too small and slow a way of making progress. It is most interesting to follow the workings of his mind, which hews to the main line in whatever direction it starts. One is perhaps most impressed by the fact that, going along on these ponderous and weighty subjects, his mind works so rapidly and delves so directly and deeply to the substratum of things. In talking with him on a subject which he is interested in, one is seldom able to complete the point one is aiming at before he has grasped and digested the full significance of what one is leading up to.

He has worked out a number of principles. One is that because there is never enough money to supply all the needs, it must be made to do first the most pressing work; the affairs of money-giving and administration must be managed as effectively, he claims, as the affairs of money-getting. Now this is unemotional, it is probably a widely unpopular idea. A man who gives money usually wants the pleasure of seeing personally with his own eyes the grateful look of the beggar who may perhaps trade successfully upon his sympathies instead of doing a hard day's work.

Consider Mr. Rockefeller's way of looking at this whole subject from *his* point of view. He has the temperament which works upon scientific instead of haphazard principles. He plans along straight and big lines for the future and all time, his benefactions are intended not to die with him, but to go on no one can foresee how long. These are the plans that please him to work out.

It is one thing to give money as most men do, write a check and try to forget it; and another to devote one's days to making plans to give money in such a way that they may establish a system of giving which will avoid disaster instead of relieving it.

THE GENTLE ART OF PHILANTHROPY

A large proportion of Mr. Rockefeller's gifts have been to education in its broadest sense, and how far-reaching the influence of the use of some of his money is may be judged by a single activity among the many and larger activities of the General Education Board. In connection with the Department of Agriculture at Washington, it has at work under Dr. Knapp, in the Southern states, about 200 farm "demonstrators," who direct in all more than 32,000 demonstrations on as many farms. By a "demonstration," a farmer learns directly and practically by his own work on his own land the fundamental lessons of the best new agriculture and of good management. The result is that these farmers are increasing their yields, some by 25 per cent., some by 60 per cent., and many even doubling them. There has never before been such effective and revolutionary instruction in farming—perhaps never in any other art or industry.

This is only one of the activities of the General Education Board, and, as regards its cost, a minor activity. This board, made up of distinguished educational authorities, representing every section of the country and of successful men of affairs, is self-perpetuating, and it holds a larger sum in trust (more than 42 millions of dollars) than any similar organization in the world. Its largest work, in cost, is adding to the permanent endowments of well-established colleges and universities alike in every part of the United States. It is dispensing for this purpose the larger part of its income.

To Chicago University Mr. Rockefeller has given about 23 millions of dollars; and this liberal help has at once given it a permanent and strong place among our greatest institutions.

One hesitates to particularize as to how much money goes to any institution, because the human mind is so constituted in supplying for itself satisfactory reasons for doing what it

wishes, positive or negative, that if one should print the statement, for example, that Mr. Rockefeller had arranged to give such and such an amount to such and such a cause, the good people who had been helping on this self-same work would say to themselves (if not to others): "That lets me out." Many cases can be quoted where a large gift has decreased an institution's total income through this scapegoat of conscience. Yet the all-wise public asks again and again: Why does Mr. Rockefeller make a provisional gift of $200,000 on the stipulation that we give an equal amount? It 's easier for a rich man like him to give $200,000 than for 200,000 people like ourselves to give a dollar apiece.

As helping to establish a great principle of benefactions, I am sure Mr. Rockefeller will certainly gain in the end his greatest renown—and it will come in the end, too. The amount of his giving is not so important. One is told that he has already bestowed upon various institutions between $100,000,000 and $200,000,000—what proportion of his wealth this amounts to is, of course, not known, and he is certainly not likely to be praised most because of the mere size of the gifts; it is the spirit that must count with the millionaire as it did with the boy who kept Ledger A. But what is surely important in an estimate of the man is that he has made it the study of his life to determine the best ways of giving and to work for this great idea of the scientific organization in benefactions. Surely, it is an important achievement, for which he should receive credit if we are a just people, and wise enough to wish to tempt other rich men to turn their thoughts in this direction.

While most men of wealth are fearful of the results of their fortunes upon the character of their children, Mr. Rockefeller finds one of his chief joys in the hearty coöperation of his family, the aggressive work they do, along the lines already laid out. Not one of the least of his achievements has been the training of his children to desire to give intelligently and sympathetically.

Consider for a moment the machinery and study which go into the placing of one or two hundred millions of dollars in wise circulation. Mr. Rockefeller maintains at 26 Broadway a force of sociologic experts large enough to study all cases which are not merely frivolous or obvious parasites. Each of these is investigated and acted upon in accordance with the advice of those best qualified to judge its merits. The letters received come from every country on the globe and the vast number of the requests requires a good deal of work to handle properly. A single day's mail contained letters from twenty-two foreign countries.

It may seem that too much has been said about this work of giving, but no true sketch of Mr. Rockefeller's activity can be written without going into this phase of his career, because it has been his chief profession for many years.

THE NEED OF EFFICIENCY IN CHARITY

In this great plan of increasing efficiency in all charity, Mr. Rockefeller is most enthusiastic, and especially in the plans now being worked out by the General Education Board. He had received word when I was with him that Mr. Carnegie had consented to become a member of that board, and he was full of the idea that this coöperation would lead to the conception of many new developments, for this reason:

When a considerable sum of money is to be bestowed upon any institution, or given for any good cause, the wise giver must go to some trouble and expense to investigate its merits. This is done over again by practically every donor: Mr. Carnegie, Miss Helen Gould, Mrs. Russell Sage, and happily very many others. But it is Mr. Rockefeller's idea that a great saving would result in having this investigating done once and done well by people of unquestioned ability, and that this information should be put at the disposal of those who can avail themselves of it and the money which the investigation would have cost might be saved to make the gift that much larger.

Here we have the trust idea in philanthropy. It will unquestionably be resented by the purely emotional, and surely by all institutions whose methods are slipshod and unbusinesslike. It will be objected to when carried to its last analysis, on the ground that it, as do most trust workings, minimizes the personality of the individual, and that it makes a business proceeding of what should be primarily an affair of the heart. How much real sense is there in this? Do people who are in the thankless business of raising money find that their trouble comes from the fact that other people wish to give too scientifically, or is it not that they will not devote any great amount

of serious thought to the subject at all? The impulse to give must always come from the heart, then the head comes in as an administrator. More than one philanthropist has gone to his grave convinced that some of his emotional gifts have done the world not only no good, but positive harm.

ABOUT BUYING GOOD OPINIONS

The statement has been made that Mr. Rockefeller is giving money to buy his way into the good opinion of the public.

With the idea of discovering just how Mr. Rockefeller is conducting this so-called effort to buy good will and evade the righteous judgment of men, I undertook the task of finding out to whom and just how he had given these great sums of money, and the conclusion is forced upon one that if he has spent somewhere between one and two hundred million dollars to purchase this good will, he has not shown the business ability with which he has been credited.

Mr. Rockefeller seemed more than willing to discuss anything under the sun and he would talk of the principle of benefactions, but not of the sums of money he had given. At his office his assistants were more than willing to drag out letters and documents about any subject I wanted to study but, here again, when it came to a statement as to the sums given to various lines of work, they also were reticent. One does succeed, however, in discovering in what a business-like way this giving of benefactions has been carried out. I could not find, for instance, that Mr. Rockefeller has himself signed a check for five years; in bestowing all his gifts he has hardly written a personal letter concerning them.

Take as an instance a sum sent to the General Education Board. Mr. Rockefeller has never met the directors of this board in meeting, and most of its members have never even seen him; he has never made a personal recommendation as to the investing or the spending of a dollar of the fund. Once, when he came to fulfil a pledge to give $10,000,000 in securities or cash, he telephoned when the day arrived and asked his representative to take checks, aggregating $10,000,000, to the meeting of the board. They were made out and signed by his cashier, he never saw them and wrote no letter to go with them. What his sensations were no one can tell, but we know the transaction was done in a common-sense manner with the least possible fuss and feathers — no one would ever have heard of the gift from him or his office. When the additional sum of $32,000,000 was given to the General Education Board it was accompanied by a note of eight lines.

Almost all of his benefactions are made in this simple, silent, efficient way; they go on day after day, not one in a hundred ever being heard of by the public. It is another sign of the elemental character of the man. The trivialities of giving do not appeal to him, the small machinery of check-signing and letter-writing bore him and he won't give his time to these details. That he almost never writes a letter personally comes from the fact that he is a born organizer and he knows that other people can attend to the details better than he. He seldom, I think, reads through the long reports made up at his own desire; he gets some one whom he can trust to tell him what is in them, but you may be sure he gets the actual facts they contain. When he is away from home telegrams answer for correspondence, and when in New York the telephone message is usually sufficient.

Here is a characteristic happening that I ran across accidentally. Last summer Mr. Rockefeller through his office undertook to have trained nurses visit every home in a certain section in the tenement-house district to show poor women how to take better care of babies. His idea was not instituted as a relief measure, it will be noted, but to demonstrate the scientific fact that through the women now educated on these lines the death-rate would decrease several points. This fact was demonstrated with the result that the proper authorities have undertaken to provide this education to poor mothers in New York. This is an example of the kind of work that appeals to Mr. Rockefeller and shows why the effect of benefactions he is working out will last.

A DESCENT TO SMALL THINGS

He has a keen and kindly sense of humor which leads him often to emphasize the point of an argument by a story. He belongs to the fortunate company of the light-hearted and his faith in human nature is far beyond what most of us are able to maintain.

He is not, I should say, a great reader. The mere task of reading is irksome, his mind works so much more quickly than his eye that he demands a short cut to information of all

kinds, and he apparently manages to get it somehow.

It may appear strange that a man of such large ideas and affairs finds great pleasure and satisfaction in the game of golf. But golf has a vital hold among the most mentally active men, because, no doubt, it requires great concentration of mind, and is a healthful out-of-door recreation that may be played from the cradle to the grave.

The way Mr. Rockefeller goes at golf is characteristic. He takes it with exceeding deliberateness, as he does everything else; if he has any nervousness or temper hidden about his person, he does not show it even on the golf links. His movements are slow and careful and he plays a good game for a man who took it up so late in life.

As a rule, he drives a good ball of, say, one hundred and sixty or eighty yards, but if he should top his drive into one of those spongy marshes which often lie in front of the tee for the benefit of the unwary, he does n't put down another ball and begin over again (forgetting very likely the stroke and the penalty), but takes his niblick, goes into the sticky slough of despond, makes the mud fly in all directions, plays the ball out, and keeps accurate count of the strokes used. If he drives into the woods (and he seldom does — he deliberately fixes his stance to avoid it), he goes after the ball, finds it, and plays it out, no matter how many strokes it takes, and when finally he arrives on the green, he puts the ball painstakingly into the hole if his last stroke covers only two inches. Mr. Rockefeller plays scrupulously honest golf; he avails himself of no slighting of the rules, and this is not a universal practice with people who take a hundred or more strokes in going eighteen holes.

As a traveler he is democratic. In general he uses the same trains as the rest, no private cars; and when, as is often the case in the South, there is no dining-car, he goes to the station table and takes the restaurant fare with the other passengers. In one instance, he expressed his appreciation of some of the items on the bill of fare with an enthusiasm with which some of his more pampered fellow travelers could not altogether agree.

"If he is as rich as men say, he has a queer way of showing it," said one passenger; "if I had his money, a private Pullman fifty yards long would n't be too good for me."

Perhaps all this is idle gossip and it is foolish to write it down in serious print. The excuse for doing it is this: Comparatively few men know or can possibly know Mr. Rockefeller personally, many may know him by evil report. If it can be made plain that his character is that of a man of simple tastes, with no ostentation, with no small vanities, and further, that he works on broad and impersonal lines, the public will gain at least one new idea about him.

What a hardship to Mr. Rockefeller has been the flippant reporting of his daily doings by the newspapers few readers realize. A year or two ago his daughter, Mrs. Strong, was fatally ill in a little country town in France. He was sent for and on the ship was greeted by two reporters, who told him that they had been instructed to stay as close as possible during the entire trip. This they did during all the trying weeks which followed, reporting the daily events in the little town, so that this home tragedy had to be carried on under the eye of these representatives of the public. Mr. Rockefeller admitted that he found this hard to bear at such a time, but he added, "I think the reporters hated to have to do it."

MR. ROCKEFELLER'S METHODS OF WORK

Let us give a story to show how fundamentally direct is his mode of working:

In the early nineties he found himself in possession of a great deal of land in the iron ore country in the Lake Superior region. To make the land, which was purchased as an investment, yield any interest, it was necessary to get this ore to market. His competitors controlled the means of transportation and he was practically shut out of the best and most effective facilities. This was the way he went at the task of overcoming these disadvantages.

He sent, first, a representative to find out who knew most about ore transportation and the building of ore vessels. The identity of the man was easily discovered, and it was, of course, a man who was himself a large factor in the control of the trade into which Mr. Rockefeller proposed to enter.

Most people would have concealed their plans from the one person who was to be the chief rival in the new business. This is exactly the opposite of what Mr. Rockefeller did. He asked the gentleman to call upon him, and

then explained to this expert that he was going into the ore business, and that he wanted him to build the boats. When the ore man recovered from his amazement, he declined and explained that he had no idea of working to aid a new rival to go into his business. In ten minutes Mr. Rockefeller explained to him that he was obliged to market his iron ore from his lands to get an income from the investment, that he was willing to pay the builder a good profit for the best boats that could be built, that he was also willing to give an order then and there for $3,000,000 worth of ships, but that, if he did not care to take this order, he would have to go to the next best man, which would deprive the ore man of the profit to be gained from building the boats, but that the work would surely be done by some one. He had logic and common sense on his side and the ten minutes' talk was sufficient. The details were worked out at the office; the ore man accepted the order at a price profitable to him and the result was a good bargain for both. You may be sure that the satisfaction to Mr. Rockefeller was the personal touch with the man — the making of the trade. Even in his most active times he was not interested in details. I never knew of a man who was more bored by mechanical or trivial items, or on the other hand more interested in the small things which add real significance to any plan he is working on.

MR. ROCKEFELLER ON BUSINESS MORALS

Whole books have been written to show how Mr. Rockefeller oppressed his rivals, and ruined their business by securing unfair rates for transportation, pursuing them to the bitter end. His own description of his dealings with these men is an exact antithesis to the story his enemies have told. The steady growth of public opinion has now charged that Mr. Rockefeller built up for himself by pulling down others, piling his edifice on their ruins. When a man showed his head in the oil business, he was at once gone after, spied upon, and his trade ruined; then his business was taken over for a fraction of its value. This is, in effect, his statement on the subject.

"It would have been impossible to make a success by oppressing people. Big men who do things in a large and effective way cannot be oppressed; they may suffer a temporary disadvantage, and one might make a temporary profit by pushing them at such a time, but it would be only for a time. I never was so foolish as to follow these tactics; I wanted able men to work with me and not against me. I tried to make friends of these men, I admitted their ability and the value of their enterprises. I worked to convince them that it would be better for both to coöperate for economy, for extending the world's markets, for the development of by-products; and if I had not succeeded in getting their friendship, the whole plan of the Standard Oil Company would have fallen to the ground. I admit I tried to attract only the able men: I have always had as little as possible to do with dull business men.

"Let us go a step further and suppose that not only by getting rebates from the railroads on our own products but on the products of others as well, I had ruined these able men and forced them to come in with me. Could any man alive develop from such material the *esprit de corps* which even our enemies admit we have always possessed? Perhaps you say, after being so near ruin, a man will go in with anybody who will show him a way out. This can only be answered by the personnel of our company. Strong men who had been ruthlessly shorn of their self-respect would not for thirty years work in harmony and build up a great business. The thing is inconceivable."

So the reader may take his choice between the arguments, but for the sake of giving the benefit of a doubt, let it be remembered that the crowd has made up its mind: a paragraph to the effect that the Standard Oil people had done a just action would not be widely printed; a story that the Standard had crushed out another deadly rival would be circulated broadcast even if both tales were not founded on fact, because the crowd desires to justify its already accepted conclusions: it does not want to begin its mental processes over again.

WHAT KINDLED THE BLAZE

The acute seeker for truth may naturally ask, "Why should all sorts of stories be told of Mr. Rockefeller if they are groundless? Why so great a volume of smoke unless there was some bright little blaze kindled into life somewhere?"

In the first place, Mr. Rockefeller was a born organizer; he sought and obtained only the brightest men in the firms he brought together into his organization, and large was

the number of such consolidations; and no new order of things can go into effect without bringing antagonism into being. The list of men who must have felt slighted is very large.

Secondly, the mere magnitude of the organization made years ago, when combinations were new, brought down upon his head the first resentments, while the same things done later, in the ordinary course of business combinations, attracted no attention. Even if the things done then were much less liable to criticism than if done now, the judgments were more unfriendly and less impartially studied.

In the third place, the effect of these consolidations is in some respects similar to the effect of introducing labor-saving machinery. While they make possible great economies in production, so that the price of the product to consumers can be reduced at the same time that the wages of labor and the remuneration of capital can be increased, it nevertheless results for the time being in the displacement of certain individuals who had theretofore been profitably occupied. In the one case, the individuals displaced are the workmen whose labor is made unnecessary by the improved machinery; in the other, it is the managers of the smaller plants whose services are rendered unnecessary by the improved organization. It is natural that in both cases the persons who are displaced should fail to appreciate the advantages of the change and should complain of their misfortunes.

It is, of course, too soon even to guess at what will be the final outcome of all the litigation now going on in the courts against many combinations of capital conducted as great corporations. That public opinion has been inflamed by both real and imaginary abuses is unquestioned, and no man can speak intelligently of the final outcome. Many people have based their judgment of Mr. Rockefeller not on definite knowledge of his conduct but upon their general opinions about combinations of capital and such subjects. For years he has been known all over the world as a genius at making money, but as a genius at equally efficient giving, the public knows next to nothing of him. How fundamental and far-reaching these plans are will not be demonstrated adequately for many years. For the end is not yet.

THE WHITE RACE IN THE TROPICS

A HABITABLE AREA OF TEN MILLION SQUARE MILES IN SOUTH AMERICA AND AFRICA AWAITING DEVELOPMENT

BY

S. P. VERNER

THE star of empire has reached the Pacific on its westward way; now it must go southward. For the last twenty centuries we have seen the dominant peoples of the world gradually fill up the north temperate zones, and encroach upon the south temperate until in Argentina and South Africa they have achieved an effective occupation, and now they stand fretfully looking upon the vast, rich regions under the Southern Cross, ready to fill up the measure of their last opportunity. What shall we do with the tropics? That is the great question of the twentieth century.

Can we do anything with them? Let us examine the question in the light of history. The inquiry is necessarily limited to the possibilities of the "white" race in the lands twenty degrees on each side of the equator. I include the Semitic races in this classification. That the Aryan race at one time built up a great civilization in a tropical land is shown in India. The present common Hindoo is no longer a type of what this race once was because of the intermingling and superimposition of the Malay and Hamitic types which, the one aboriginal, the other interpolated, have so vastly modified the whole population of the peninsula. But it is noteworthy that the builders of the ancient civilization of India, once so glorious, whose remains, in temple, shrine, palace, art, and literature, still compel

the wonder of modern beholders, were the Aryan peoples from the Araxes and the Aral plateau. It is sometimes imagined that the decadence of this civilization is evidence itself of the white man's unfitness for the land he conquered. The inference is a *non sequitur*. Indian civilization was originally builded by a white race and its resurrection is being achieved by a white race. That ancient civilization was complete in its kind, before decadence set in, and had lasted longer than the Roman Empire before it began to totter. Its decay was not due to climatic or geographical causes, but to social and economic forces, for if the climatic reason operated, why did it not prevent the development of that civilization in the first instance?

In what sense is this industrial conquest of vital moment to the American people? Clearly this: the nearest continental land masses to us are Europe, South America, and Africa. Our general relations to the European powers and peoples are already more or less clearly defined. We know with whom we have to deal, and the problems of our present and future relations with them are fairly well known. What these relations with the powers which may eventually develop in Africa and South America are going to be is one of the greatest questions of the future; how to provide for peace and mutual advantage with the nations which may develop there is a task of paramount importance to the American statesman of this and coming generations. What are the means by which these desirable ends are to be achieved?

First, by the means of a favorable tariff régime of reciprocity. Already the imports from these lands consist so largely of raw material, mostly non-dutiable, that this step in the right direction may be said to have been begun.

The all-effective means, however, of increasing commerce with these tropical regions, is the presence of efficient Americans resident there and actually engaged in business. This is the *modus operandi* of the European powers in South America, to the relative loss of American prestige. While various causes are commonly alleged for this — their advantageous banking and credit terms, their energetic advertising, their subsidized merchant marine — the really potent force is the man who lives in the territory to be assimilated. It is the resident German in South America who is at the bottom of German commercial supremacy. Actual residents of these foreign countries with business, social, and sentimental connections with their home lands diffuse information about the products of their former country; they send orders themselves; they cause their neighbors to do so; they find business openings, land for sale, and all sorts of opportunities, which they describe to their countrymen, and which induce many to follow the pioneers. While boards of trade are blowing trumpets, and consuls are making reports, and diplomats are exchanging visits, these unheard individuals are going serenely on, unconsciously laying the foundations of international commerce and effecting the gradual transformation of the country that they occupy.

A man of the writer's acquaintance had twelve hundred dollars and a few months time. He went to the tropics, made large scientific collections, took photographs, studied local conditions, came home, cleared ten thousand dollars on his work, and was in demand for his knowledge, besides having a store of experiences to bequeath to his grandchildren.

One does not easily realize how much development is still possible in the tropics, development in which we can directly take part. In Africa, the tropical regions south of the Sahara and north of the Zambesi include about five million square miles, nearly all of which is capable of agricultural development. A curious coincidence is that tropical South America is of almost exactly similar extent, so that these two great tropical regions present a superficial area of ten million square miles, practically all of which is capable of productive exploitation. The total population of these regions is 115,000,000. This gives an average of about eleven persons per square mile. While it is true that these lands are not all equally desirable, the proportion of good land is higher than in any other equally large landmasses anywhere in the world. It is interesting to compare this density of population with that of other countries. In China, it is one hundred people per square mile; in the Russian Empire, twenty per square mile; in the United States, thirty; in France, two hundred; in Belgium, seven hundred. The two tropical regions containing the ten million square miles above mentioned could give to every man, woman, and child on the globe a five acre plot capable of producing everything

necessary for their comfortable support. It is clearly evident that those immense regions offer to the world opportunities not yet faintly dreamed of.

What these two vast tropical regions are capable of producing is shown by the following tables:

Vegetable and Animal Products

2	billion	dollars'	worth	of	rubber	gross	a	year
1.5	"	"	"	"	cotton	"	"	"
1.6	"	"	"	"	corn	"	"	"
2	"	"	"	"	veg. oils	"	"	"
.7	"	"	"	"	fruit	"	"	"
3	"	"	"	"	timber	"	"	"
	with re-forestation every fifty years							
2.5	billion	dollars'	worth	of	cattle and horses			
13.3	billion	dollars total per annum in perennial vegetable and animal products.						

Mineral Products

400	million	dollars'	worth	of	iron	for	centuries
100	"	"	"	"	silver	"	"
200	"	"	"	"	gold	"	"
700	"	"	"	"	copper		"
850	"	"	"	"	coal	"	"
400	"	"	"	"	min. oil		"
2,650	"	"	total				

This gives a grand total of nearly sixteen billion dollars of possible annual production from resources known to exist, and confining the products only to the above articles. The output in the United States in such of the above articles as are here produced for the year 1907 was about five billion dollars. This shows that the estimate for the two tropical regions is conservative. As the rubber and vegetable oil products are peculiar to them, and as the mineral resources are almost untouched, the estimate (which was worked out in detail from reliable data before being summarized) is a safe minimum. The mineral and metal resources are probably many times greater than the known deposits above enumerated.

It remains to modify the theoretical capacity of those regions by the factor of the labor. The population of the tropics under consideration is about one hundred and fifteen million. The United States, with a slightly smaller population and one-third of the natural resources, produces vastly more than one-third of the above estimated annual product. To reduce the matter to figures, before correcting for minor errors, the average American, man, woman, and child, produces about seventy-five dollars' worth of the great staples per annum. This, of course, is not the final average of the total productive capacity of the American, but simply his average production of the great staples.

At this rate the present population of the tropics could produce nine billions of the fifteen above mentioned. The comparison might be criticized for balancing many savage and barbarous races against the American working man. But, on the other hand:

(1) The kind of manual labor required to produce most of those staples is unskilled. The native African, for example, has already shown an aptitude for ordinary industries equal to that of his American cousin, and his capacity is constantly increasing. In South America the native population is not so hopeful, but the stream of migration has been setting in that direction and will continue to do so.

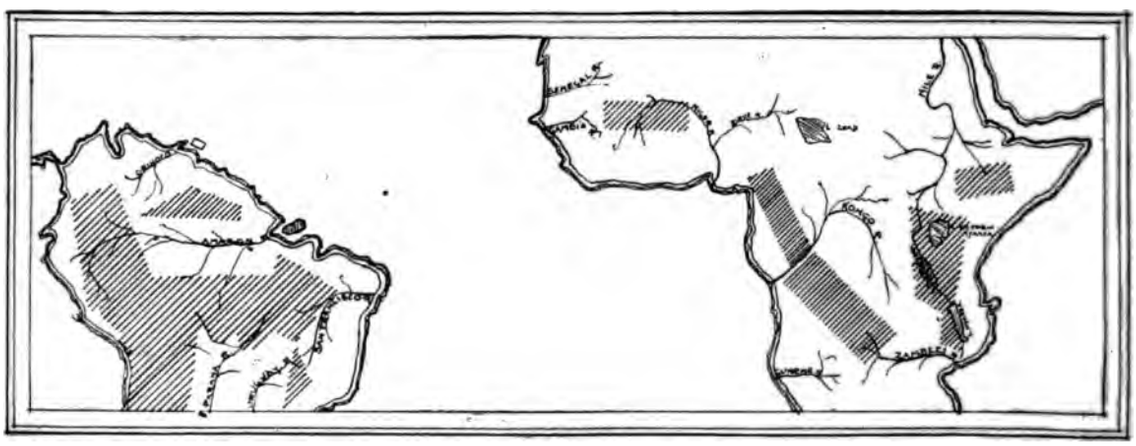
(2) It is only a matter of a comparatively short time before a steady stream of settlers will start toward those regions. The filling up of the other parts of the world; the tendency in America to restrict immigration; the rapid increase in the knowledge of the resources of the tropics and in the knowledge of how to live there; the extension of the means of communication and of transportation; the awakening of the great powers to the value of the opportunities they possess in the territories they control in Africa; and the increasing appreciation, by South American governments, of the fact that land is worthless without men to work it; all of these influences contribute to the southward movement which will be the characteristic economic fact of the twentieth century.

(3) It is very often true that an inferior race directed by individuals of a superior develops greater efficiency for a given task than where the manual labor and the executive supervision are performed by the same race. The qualification attaching to this statement is that this is true where there is effective organization, and the work to be accomplished is divided into large units. Under a system of individual settlement and many small industries, the higher the race of the lower class of labor the better. It is evident, however, that a vast amount of tropical development, especially during its preliminary stages, will be accomplished by great industrial concerns, with a hierarchical system of superintendence, giving to the labor at the bottom the benefit of

the most skilled direction and control. This will make the native labor in the tropics admirably adapted to the purposes in question.

(4) The other advantages offered by the use of the native labor include: Their adaptability to climatic conditions; their lack of tendency toward strikes, discontent, and organization for destructively selfish purposes; their interest in and love for the country of their origin, and their pride in its growth and development.

When all these things are considered, it appears that the labor *in situ* is far from being a negligible quantity; and that, supplemented by adequate directing talent, it is capable of playing a most important part in the progressive development of the tropical regions. Indeed, one may say that with three million capable, progressive whites wisely distributed over the ten million square miles, as friendly directors and instructors of the existent population, that population will be capable of producing all of the nine billion dollars' worth of staple products per annum.



THE WAITING TROPICS

The shaded area shows 3,200,000,000 acres of land habitable by the white races, with an average elevation of 3,400 feet and a mean annual temperature of 73° F.

This brings us naturally to one of the main factors in the "how" of this great problem. The wise distribution of these additional white men is a matter of tremendous importance. Taking the matter up in detail, the way in which I advocate the placing of these soldiers of industry appears on the map, in its general outlines. At the same time, these sections must be known in considerable detail to facilitate the wise location of these white centres.

To illustrate the point, I take a concrete case. Between Matadi and Stanley Pool, the Congo Railway crosses the summits of the Chrystal Mountains, at an elevation of about three thousand feet. In the hottest month of the year I found those places delightfully cool, and the testimony of all the whites is that along those ridges the climate is practically temperate and salubrious. The white men pushed on, however, into the remoter interior regions, for various reasons, most of them sound. But they neglected this salubrious region. In general, this range of mountains borders the Congo Basin on the west for nearly a thousand miles, so that from settlements along the ridges or adjacent plateaus one may be in easy reach of all parts of the western half of the basin. Moreover, the soil in these upland valleys is excellent, and their natural resources sufficient. Probably most of the mineral wealth of West Central Africa will be found there. As many rivers run down these slopes toward the great inland streams, there is power and means of navigation both at hand. Here white settlers should be located, and a branch line of the Congo Railway should be built along this crest to serve their purposes. There ought to be an easy system of small land grants in such a region, and, in places, a few government farms, from which to send food to other parts of the country, and about which these colonies might group themselves. As the region will produce $50 per acre in rubber, net, the colonists can soon build up not only self-supporting but money-making plantations over a territory as large and as healthy as California.

The "line of least (apparent) resistance" in the tropics, which has naturally been taken by pioneers, is by no means always the most healthful. Along the great rivers, off the tempting bays on the coast, is the way men get in; and they are confined to the proximity of these places until a means of rapid transit can be devised. In general, one may say that it is vitally important to build railways through the healthful regions as early as possible.

Many colonizing efforts have failed, but the causes of failure are clearly discernible. If all of the points here mentioned are embraced in the scheme, success is practically assured.

Besides the two already mentioned — a healthful region and means of rapid transit to it — a third requisite is adequate means of support until the enterprise is productively self-supporting.

It is on this rock, for example, that Liberian colonization schemes have split. Men go there with no means to live, expecting to pick up bread-fruit under the trees, and bananas from the woods, and are soon undeceived. A well-planned scheme involves the taking of food-supplies, barter-goods, tools, medicines, arms and ammunition, and seed, for a year ahead, or arrangements to procure these things on the field, with the money to pay for them. No colored man ought to leave America for Liberia with less than five hundred dollars in his pocket, and he ought also to have a definite offer of land which he knows to be good enough and properly located, before he goes. A properly organized company could take care of all these points in advance, and render the Negro emigration from this country to any part of Africa feasible and successful.

Then, too, men going there ought to be willing to live in the simple style necessary to keep their expenses within the limit of their capital until they are self-supporting. In the Congo the extravagance of the average white man is astounding. Champagne is the invariable order of the day for men getting a few hundred dollars per year, and the official usually lands in Antwerp after three years with enough money for a spree, when he must sign and go back.

It must be remembered with what Spartan simplicity the American pioneers built up their early homes, and laid the foundation of the present wealth and luxury of the country. They lived in huts, ate corn-bread, drank water, wore homespun, and conquered an empire. The old principle of loving liberty better than comfort which the log-cabin exemplified is as sound as ever. The colonists ought to be encouraged to become land-owners, on however limited a scale; even when these settlers are agents for large commercial companies, the companies will find it beneficial to their interests in the end to encourage this development of the investing spirit. Ownership in land usually is the foundation of progress, and the strongest incentive to local patriotism.

In the details of actual operations, a large use of the most improved modern machinery is indicated. It is with reference to this point that many mistakes are made. One thinks without reflection that native labor is so cheap that much can be done more economically by hand. But the fact that the work to be done in these new lands is so enormously in excess of the available labor is in itself reason enough for the use of all the labor-saving devices possible. I saw an illustration to the point in the marine service at Leopoldville on Stanley Pool. The winch for drawing the steamers on the slips for purposes of repairs was elaborately provided with many long hand-levers for use by man-power. Perhaps as many as thirty men would be required several days to get the boat a few feet on shore. A steam winch would do the work in short order, and the labor of the men could be directed to what they alone could do — gathering rubber, where their time is worth a dollar a day each. This is the crux of the matter — put the manual labor where only manual labor can do the work required, and let whatever can be done by machinery be accomplished in that way. The field for the use of modern, improved machinery of all sorts in the future of the tropics is something so immense that we can hardly estimate the results from its application. For example, the magnificent water-powers in the valleys of the Amazon, San Francisco, Congo, Upper Nile, and Zambesi could run all the machinery in the world to-day, and have power left over. The development of invention has been such that by commencing with labor-saving devices in the beginning of an enterprise, the cost-units and profits can be more easily estimated and controlled than formerly. These devices will largely overcome many of the natural difficulties which exist. Each settlement ought to be planned on the basis of having an

ice-factory, saw-mill, automobiles, newspaper, telephones, electric lights, at least; and the general scheme ought to be so arranged as to embrace them. They will make life more attractive, labor more efficient, and the progress of the community very much more rapid.

The plan of local government ought to be so thoroughly understood in the commencement of the colony's existence as to minimize future misunderstandings. The questions of taxes, of land tenures, and the methods of land acquisition, of trade rights, of mining laws, ought to be enacted into a form fixed for a considerable number of years — not less than twenty — so that the colonists may know in advance what they have to expect, and arrange their plans accordingly. Large exploiting companies ought to have a contract with the government covering these points.

Training-schools for special study of tropical conditions, languages, and the methods of development most applicable ought to be part of the organization of our principal universities. Indeed a great international university in Cuba for this special purpose would be eminently in place. Similarly, training-schools for the native peoples are indicated. They ought to be intensely practical in aim and methods, teaching the way to work, the dignity of work, and the value of work. A savage, when emerging from his primitive condition, is very apt to look upon civilization as emancipation from work, and to try to attain to that false ideal.

Justice to settlers going from countries in which they enjoy a large measure of political freedom demands that the principle of local self-government shall be embodied in the scheme of government as early and as fully as possible. On this rock has many a colonial venture gone to pieces. Let the colonists be encouraged to govern themselves, and let the mother country occupy herself only with the relations of the colonies to external powers. It remains to take up in detail the exact situation in each of the great undeveloped tropical continents, but a concluding word here is pertinent in reference to the great possibilities of happiness for the "unemployed," the insufficiently employed, the relatively unhappy among us, in the vast fields to the southward. It is particularly because of their agricultural opportunities that these regions offer the means of comfort to many millions. An agricultural people has the most solid foundation for general social contentment. They are not so apt to respond to the sensitive influences of the market — at least not to the extent of real hunger and want. They can nearly always live and be free. To get the numbers who are all the time suffering from the disorder incident to our inchoate social conditions, especially in the great cities, to where they can both enjoy a measure of happiness themselves, and be instrumental in bringing into productive alignment the mighty plains, forests, hills, and valleys of the waiting tropics, is a task worthy of the highest effort of the patriot and the statesman.

A NEW KIND OF COUNTRY SCHOOL

SO CONDUCTED AS TO GIVE A WHOLLY NEW MEANING TO "EDUCATION"

BY

O. J. KERN

(SUPERINTENDENT OF WINNEBAGO COUNTY SCHOOLS, ROCKFORD, ILL.)

BESIDE a country road in Magnolia Township in Putnam County — the smallest in Illinois — stands the John Swaney Consolidated School, the finest of its kind in the state. For there a small group of people have had the knowledge and the faith to pay out generously their hard-earned dollars that their children in the country may have the corresponding school advantages that the most favored city children have; not the same advantages, for they realize that the teaching which will best adapt a child to life in the country is not that given in the city schools.

The people who have built up this country

school are not rich. They are simply honest, hard-working farmers, descendants of good old Quaker stock from Ohio and Western Pennsylvania, who believe — and are willing to pay for their belief — that their children should have the best possible preparation for living a large, free, country life.

Mr. John Swaney, a farmer of moderate circumstances, donated twenty-six acres covered with original growth — oak, elm, walnut, etc. — for school grounds. The schoolhouse, which takes the place of several little old-fashioned country schoolhouses, cost, with its equipment, $16,000. It is a two-and-a-half-story building containing four recitation rooms, two laboratories, a large auditorium, two library and office rooms, a boys' manual-training room, a girls' play room, a furnace room, and cloak rooms. All are lighted with gasolene gas generated by a plant, the reservoir of which is outside of the building. The laboratories are also furnished with gas from this plant. The building is heated with steam and furnished with running water supplied by an air-pressure system. The schoolhouse and the grounds set forth, as they should, the highest ideals of the countryside.

On the school grounds is a barn for twenty-four horses. Here are stabled the two teams of the two wagons which haul the children to school, for when the small schools were abandoned some of the children were left three or four miles from the consolidated school. The extra stable-room is for the horses of tuition-pupils from outside of the consolidated district. The roads are ordinary dirt roads in good weather. In bad weather the dirt becomes mud, Illinois mud, of the very best quality. However, the farmers of northern Illinois never fail to get their milk to the central creamery if it takes four horses to do it. The Putnam County farmers believe that the children are deserving of as much consideration as their milk. One of the wagons employed in hauling the children to school makes a round trip of nine miles; the other one goes nine and one-half miles. Each wagon makes twenty-two trips during a school month. The teams are driven by farmer-boys who are in the high-school room. The cost of this transportation is forty dollars per month. As twenty children ride in each wagon it makes transportation for every child about nine cents per day, or about the cost of two street-car fares in a city. The wagons cost about three hundred and twenty dollars and are the property of the district. During all last year not a single trip was missed, neither wagon was tardy a single time, and extra horses were needed only three times. Yes, civilization is advancing in spite of mud.

One of the abandoned school-buildings which stands just off the twenty-six acres has been remodeled for a teachers' home at a cost of five hundred dollars. This was done without expense to the district. Three or four farmers took this way of spending their own money to solve the problem of the boarding-place for country teachers. The teachers pay nine dollars a month rent for the use of the building and hire a competent housekeeper to cook and care for the home. The domestic-science teacher in the high school outlines the daily menu for their table.

This farming district has been as wisely generous in hiring teachers as it has in building an adequate plant. The principal is a graduate of the Central Illinois State Normal School, and has had one and one-half years additional work in the Illinois College of Agriculture. He receives a salary of one hundred dollars per month. The woman assistant in the high school, also instructor in domestic science, is a graduate of the Evansville, Ind., High School, with one year's work in Northwestern University and another year's work in Chicago University. She receives sixty dollars per month. The teacher of the fifth, sixth, seventh, and eighth grades is a graduate of the Central Illinois State Normal School and receives sixty dollars per month. The teacher of the first, second, third, and fourth grades is a graduate of the Western Illinois State Normal School and receives sixty dollars per month. The "faith" of these farmers is strong, and their "knowledge" is broad enough for them to realize that a well-trained, well-paid teacher will give more efficient service than a cheap, untrained one, and is far more economical in the end.

The course of study for the grades below the high school is that outlined for the common schools of Illinois, known as the Illinois Course of Study for the Common Schools. The high school contains the regular studies for high schools in Illinois, but there is a modification in the science course to include agricultural training. It begins with the study

of the seeds of common grasses, grains, and garden vegetables. There is a course on soil physics — different types of soils, their origin, composition, characteristics, and behavior under different treatment — another course which deals with the effect of the rotation of crops and the different systems of farming. There are two courses on animal husbandry and one on horticulture, besides the more usual teaching of manual training and household science. This is the country adaptation of the movement for industrial education, a training for more efficient service in the age of scientific agriculture.

Under the management of the Illinois College of Agriculture, at the University of Illinois, there are located over Illinois, in the different soil-areas, twenty-three sub-experiment stations through which the farmers may learn the needs and best methods of improving the soil. One of these is located on ground adjoining the east side of the campus of the John Swaney Consolidated School, which will have the privilege of observing the work of the station and will have access to the results.

This is what it means adequately to improve the country schools. The children in these small districts are entitled to a good building — a workshop, if you please — well equipped for doing good work. They are entitled to the educational influence of trees, vines, shrubs, and flowers in a large playground surrounding a neat building that will contribute toward the spiritualization of country life. They are entitled to the inspirational leadership of a well-trained teacher, who is in sympathy with all that is richest and best in country life. They are entitled to secondary education, a high-school course flavored with agricultural chemistry, agricultural botany, soil physics, manual training, home economics, etc., within the reach of all the children of a given country district without the necessity of their leaving their homes. The training in the country school of the future should aim to conserve all that is best and richest in a "type of mind and life" distinctively rural. The proper organization and administration of the country school system will supply art, literature, music, social opportunity for the farm. These things should be as accessible along the country road as beside the city boulevard. In the opinion of the writer this is the definition of the term "adequately improving" the country school. When you have thus vitalized the little country school you have made it the most expensive in the world per capita. Even thus vitalized, it still lacks the social enrichment possible in the consolidated school through a more varied course of study and contact with life. Here will come the trained teachers — so soon as the farmer learns to appreciate the trained teacher. They will vitalize the work of the country school and create a demand for superior work by the character of the service they render. The enlarged social participation is possible only in such a larger unit of administration as the consolidated district affords. This country high school, with a course of study flavored with country life and its interests, promises much for the future, especially when we reflect that under existing conditions in the Middle West 90 per cent. of the children now enrolled in the country schools get no other education, so far as books are concerned. They can not, or do not, go to the village or country high school. The consolidated school is more expensive than the isolated country school. It should be, for it offers far more effective service. The average country school, especially the small school with an enrolment of fifteen pupils or less, is both the cheapest and most expensive, paradoxical as this may seem. A just basis of comparison is to take the unit of work — the day's attendance — and compare that with a like unit of the consolidated school. Let the farmer "adequately improve" his school and then count the cost.

If one were to formulate an educational creed for farming districts it might well come from the experience of Magnolia Township, and it would read something like this:

The country child is entitled to every whit as good an educational opportunity as that now enjoyed by the most favored city child attending the American public school.

In order to have this equality of educational opportunity for the country child, the country people must spend more money on the country school and spend it in a better way.

The people of this one community are acting according to this creed. They are giving a practical demonstration that people of moderate circumstances can make a contribution to the enrichment of country life. They are living the eleventh commandment — *thou shalt enrich and enlarge the life of the country child.*

The World's Work

WALTER H. PAGE, EDITOR

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MR. JOHN D. ROCKEFELLER

AT THE AGE OF EIGHTEEN

[See page 10755]

THE
WORLD'S WORK

OCTOBER, 1908

VOLUME XVI NUMBER 6

The March of Events

DULNESS — that is the word that describes the campaign — unprecedented and unbecoming dulness. You would think that there are no grave subjects involved in the campaign, from the quiet and unconcerned drifting toward the day of the election. Of course, great crowds gather wherever Mr. Bryan or Mr. Taft goes; the partizan newspapers make a show of earnestness in their appeals and in their warnings; collectors of campaign funds are active; the West is telling the East that Mr. Taft's election is by no means as certain as the East thinks it is; and, during this last month of the campaign, we shall have noise of drums and of orators.

But those who recall the general excitement of the Cleveland campaigns or of the previous Bryan campaigns, especially of the first one, cannot help wondering at the languid, almost weary, mood that the public now shows.

MR. TAFT'S ELECTION TAKEN FOR GRANTED

THE explanation of this dulness is, of course, the well-settled conviction by most men whose judgment of public opinion is sound, that Mr. Taft will be elected, whether by a large majority or a small one. This conviction brings a general, perhaps dangerous, Republican confidence.

Then, too, Mr. Bryan is not a new sensation. The effort to elect him is a familiar Democratic exercise, and to defeat him has become a familiar Republican feat. He has "gone stale" on the popular imagination. And, on the other side, there is such a general popular approval of the Roosevelt aims, especially as they will be furthered by Mr. Taft's methods and temperament, that there is no new sensation in proclaiming these.

There will be a quickening of the public attention to the campaign during its last month. In some parts of the country the people may show an active interest in it. And it is conceivable that the election may bring some surprises. But something like a miracle will have to be wrought if the present state of mind fails to insure Mr. Taft's election by a safe margin if not by an enthusiastic victory. Perhaps we are weary for a time of great enthusiasms, and a fresh personality is surely needed to arouse the jaded Democratic mind. A great many Democrats of the most influential kind feel as Mr. Cleveland felt. In a posthumous article, published in the New York *Times*, he said:

> "When it became apparent that Mr. Taft would be the nominee of his party. . . . conjecture as to the result in the November conclusions could be of but one sort among sensible men. . . . The Republican Party is certain, though with a considerably lessened strength, to move on to a safe victory sustained by the popular support of reforms which should not redound to its glory solely, those reforms having been the work of decent men of all parties."

This declaration by Mr. Cleveland is one of the most important utterances in recent party history; for its meaning is that the only Democratic President in half a century could not regard Mr. Bryan as a safe and sound representative of the Democratic party. It will have a strong influence on the thought of many Democrats.

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WHO CO
GRANT,

)R-GENERAL LEONARD WOOD

PHILIPPINES TO SUCCEED MAJOR-GENERAL FREDERICK
COMMANDER OF THE DEPARTMENT OF THE EAST

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MR. WILBUR WRIGHT FLYING IN HIS AEROPLANE AT LE MANS, FRANCE

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THE PROPELLERS AND RUDDERS OF THE WRIGHT AEROPLANE

PEASANTS FROM SWEDEN ARRIVING AT NEW YORK

THIRD GENERATION OF SWEDISH IMMIGRANTS IN MINNESOTA, THOROUGHLY AMERICAN

FIFTY YEARS OF AN AMERICAN COMMONWEALTH

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STREAM AND FOREST AS THEY WERE

A RIVER WITH A WELL-FORESTED DRAINAGE BASIN. THE GROWTH PREVENTS WASHING AWAY EVEN ON THE STEEPEST HILLSIDES, HOLDS BACK THE RAINFALL, AND PREVENTS FLOODS

THE TERRIBLE LESSON OF THE FLOODS

[See "The March of Events"]

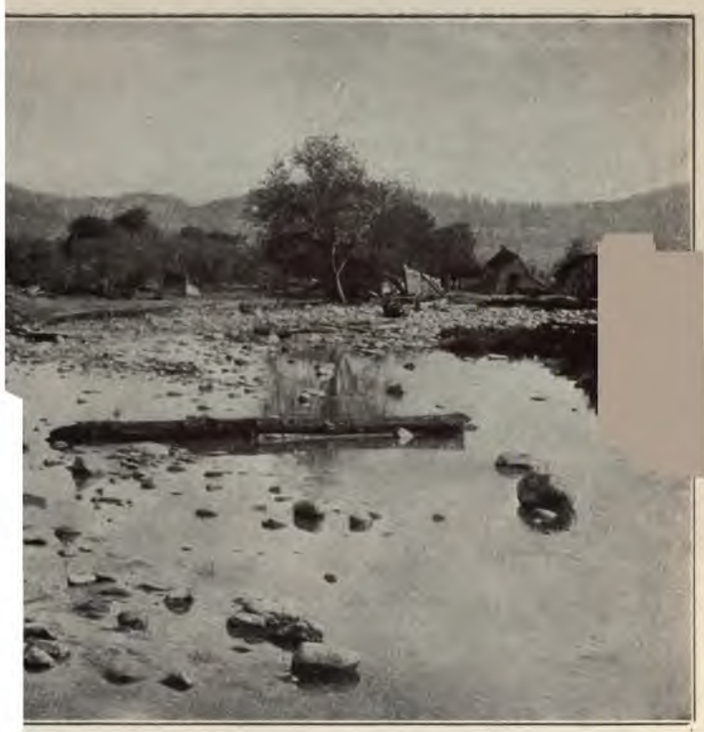
A HILLSIDE BEGINNING TO WASH

IT IS ESTIMATED THAT A BILLION TONS OF EARTH IS WASHED INTO THE STREAMS YEARLY. MOST OF THIS LOSS IS CAUSED BY DEFORESTATION

A CLEARED PLACE IN THE MOUNTAINS

THE BARE SOIL ABSORBS NONE OF THE RAINFALL AND IT WASHES SO THAT IT IS USELESS FOR AGRICULTURE

THE TERRIBLE LESSON OF THE FLOODS



THE FINAL RESULT

RAFFIC, DESTROYING FARM LAND AND HOUSES AND DROWNING PEOPLE.
THE UNITED STATES IS ESTIMATED AT MORE THAN $100,000,000 YEARLY

A FLOODED CITY

A, GA., FAYETTEVILLE, N.C., AND MANY OTHER CITIES AND TOWNS
NCALCULABLE MATERIAL DAMAGE DONE, AND SIXTY LIVES LOST

LE LESSON OF THE FLOODS

JUSTICE PECKHAM JUSTICE BREWER CHIEF-JUSTICE FULLER JUSTICE HARLAN JUSTICE WHITE JUSTICE MCKENNA JUSTICE DAY

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THE UNITED STATES SUPREME COURT

CHIEF-JUSTICE FULLER AND JUSTICES HARLAN AND BREWER HAVE PASSED THE AGE AT WHICH THEY MAY RETIRE WITH FULL PAY, AND JUSTICE PECKHAM WILL REACH IT NOVEMBER 8TH. IT IS PROBABLE THAT THE NEXT PRESIDENT WILL HAVE THE APPOINTMENT OF SUCCESSORS TO ALL FOUR OF THEM

[See "*The March of Events*"]

MR. T

THE LABOR

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THE LABOR VOTE

THE lack of a large seriousness in the campaign is shown by the prominence that was given, at least in the early months of it, to such a side-issue as the Labor vote and to Mr. Gompers's effort to control it. Organized labor is a very small part of the population that works with its hands. But it is an intelligent part of the electorate — so intelligent that all the larger organizations are forbidden by their very constitutions from going into politics, and every labor organization that has hitherto gone into politics (except in local campaigns) has for that reason gone to pieces.

Mr. Gompers will either have no appreciable success in delivering the labor vote to either party (this time it is the Democratic party that he favors), or he will be likely to undermine his own authority and influence in his organization. It is possible that he may do both — that he will fail to deliver any considerable number of votes and that he will split the Federation of Labor by his effort.

It is a grave misfortune for any industrial or social or other non-political organization to "go into politics," because such action destroys independent individual political freedom. Every man ought to vote as an individual regardless of every consideration but his political convictions.

THE DIFFERENCE BETWEEN MR. TAFT AND MR. BRYAN AS PRESIDENT

IN THEORY the powers of the President are neither many nor great. He has the appointing power, the initiative in enforcing Federal laws, and the negative power of the veto, which may be overruled by a two-thirds vote of Congress. Which of these is of the greatest importance depends on the personality of the President. Most Presidents have, perhaps, made the appointing power their strongest weapon; Mr. Cleveland (among other Presidents) did a great service by his veto, as when he saved us from an unsound currency; and Mr. Roosevelt has exerted a strong influence by bringing men and corporations to trial under the Federal statutes.

But, in addition to these stipulated powers, and greater than them all, is the use of the Presidential office as a pulpit, by the voice of a President whom the people will follow. Mr. Cleveland, for example, wrote a tariff message that lost one Presidential election and won another; and Mr. Roosevelt has done his chief service in forcing legislation and in formulating policies, by his messages and speeches.

In the use of the appointing power — in selecting Justices of the Supreme Court, for example — there would be the difference between Mr. Taft and Mr. Bryan of the schools of politics represented by their appointees. Besides, Mr. Taft has this great advantage over Mr. Bryan — that he has himself been a judge and he has a more thorough legal training and a wider experience. As to other appointments, Mr. Taft would be more likely to respect the principle of the merit system, partly because he is more thoroughly committed to it and partly because it would be easier for a President whose party continues in power to respect it.

As for the enforcement of the Federal laws, again Mr. Taft has had experience, whereas Mr. Bryan has not. It is certain that Mr. Taft will cause suits to be brought against such law-breakers as he thinks he can convict; and such suits will be tried vigorously in the courts and perhaps less in the newspapers. Mr. Bryan's efficiency in this use of the Presidential power, nobody can know. He has never been in a position where he could show his ability or his effective earnestness at such a task as this.

In the larger and less explicit use of the office in shaping public opinion into policies and statutes, by messages and other utterances, Mr. Taft would be the more conservative. He has fewer hobbies. He has a more clearly reasoned and orderly body of thought and more stable convictions. Mr. Bryan out of office has proposed this and that — from the free coinage of silver to the governmental ownership of railroads. In office, it would be hard to say what experiments he would not propose to carry out.

The greatest difference between the two men in settled doctrine is their difference regarding the tariff. In this Mr. Bryan has the advantage in definiteness and clearness. He stands for the orthodox Democratic proposal of a tariff for revenue only. Mr. Taft stands for a revision that will remove extraordinary injustices, but "extraordinary injustices" means one thing to one man and another thing to another. His change in the tariff would be less by a fixed principle than by a shifting and struggling expediency. But what either

could do with the tariff will depend on Congress; and, with the Senate as it will be for the next four years, Mr. Bryan's programme cannot be carried out. He might conceivably so arouse public sentiment in favor of reducing the tariff to a revenue basis as to cause a change in the Senate later. Mr. Taft will secure such moderate changes as the present Senate will permit.

The real differences, therefore, between one man and the other in the White House would be differences rather of temperament and of method than of mere party doctrines. The catch-phrases of the earlier days of the campaign have not clearly hit off this difference. They concern themselves rather with doctrines than with these personalities. "Shall the people rule?" for example, does not express this difference. The people will rule whichever be elected, for that 's what the election will mean. No man has yet usurped the Presidency, nor is any such event imminent.

The difference is in favor of Mr. Taft because of his administrative experience, his clear and settled body of opinions, his holding fast to a definite set of policies, and his going persistently in a definite course of conduct.

THE SUPREME COURT AND THE NEXT PRESIDENT

THE law permits Justices of the Supreme Court to retire on full pay at seventy years of age, if they have served ten years. Three of them have passed seventy and another will reach this age next month. Chief-Justice Fuller, a Democrat of the old school, might have retired at any time since 1903; and Justice Harlan, who is a Republican, at any time since 1903; Justice Brewer reached the age of retirement last year; and Justice Peckham will reach it on November 8th. He was appointed by President Cleveland and is of the same political faith. It is commonly supposed that Chief-Justice Fuller has remained on the bench not only because of his real love of the work but also in the hope that he might be able to surrender the Chief-Justiceship to a Democrat. It is likely that Justices Harlan, Brewer, and Peckham will retire during the coming administration. There is, therefore, a strong probability that the next President will have the appointment of a Chief-Justice and of at least three Associate Justices of the Supreme Court. So many appointments would completely reorganize the Court. Mr. Taft or Mr. Bryan will be guided by the same policy as other Presidents have been. Mr. Roosevelt himself has said that the important question in the perpetuation of his policies is whether a strict or a liberal interpretation shall be given to some of the statutes by the Supreme Court.

Whether a Supreme Court, reorganized by a Democratic President, would be so liberal as to approve laws for the guaranteeing of bank deposits, the Government ownership of railroads, the restriction of the writ of injunction, and other radical policies that Mr Bryan favors, in the event that they could pass Congress, is an interesting subject for speculation.

As at present constituted, three members of the Court are appointees of President Roosevelt — Justices Holmes, Day, and Moody; three are appointees of President Cleveland — Chief-Justice Fuller and Justices White and Peckham; and the remaining three are appointees of as many different Presidents, Harlan of Hayes, Brewer of Harrison, and McKenna of McKinley.

A single Justice has often held the power of decision—that, too, in some of the gravest questions that ever came before the Court, such as the income tax, the trans-Missouri freight case, the Northern Securities merger, which involved the constitutionality of the Sherman anti-trust law, the acquisition of colonial territory, the legal tender cases and others of such fundamental importance.

Theoretically the decisions of the Court hinge solely on the law and the evidence. But political education and doctrine color every man's views of the constitution. A man educated in the Republican school of politics is certain to look at some questions from a different standpoint from the man whose political education was Democratic. For example, Chief-Justice Taney was undoubtedly influenced by his early environment in Maryland when he rendered the famous Dred Scott decision. Those of the Court who considered slaves as chattels sided with Taney. Those who started from the premise that they were persons dissented.

Washington himself in selecting the first Supreme Court chose men from among his own adherents — Federalists, that is to say. In the appointment of that greatest of all Chief-Justices, John Marshall of Virginia, John Adams had in mind the perpetuation of the Federal principles that he himself stood for.

Jefferson regarded Marshall as an irreparable misfortune. Marshall, of course, more than any other man defined the powers and limitations of the constitution. He decided that Congress could not give to the Supreme Court powers of original jurisdiction denied it by the constitution, and he thereby fixed the Court's prerogative, unique and still disputed at times, to annul laws held by it to be in conflict with the constitution. Yet there has never been any disposition to attack the integrity of the Court which has ever stood as the bulwark of the people's rights. Horace Binney called it "the august representative of the wisdom and justice and conscience of this whole people, in the exposition of their constitution and laws"; and Baldwin, in "The American Judiciary," declares it "the best guaranty of good government in the United States."

THE GREATEST DEBATE IN OUR HISTORY

THE fiftieth anniversary of the Lincoln-Douglas debates has been held these two months, under the encouragement of the Illinois Historical Society, at the towns where they took place — Ottawa, Freeport, Jonesboro, Charleston, Galesburg, Quincy, and Alton. There is no chapter in our history that will better repay study or that better deserves commemoration; and, the more thoroughly you know Lincoln's career, the more significant these debates become.

It was in form a contest for the United States Senate such as has been held in many a state by many a pair of candidates. In other words, it was a part of a vigorous, rough-and-tumble campaign of two candidates for a high office in a semi-frontier community. Douglas had already won success and was an approved candidate for the Presidency. Lincoln had not yet become a national figure and he was overshadowed in his party — the party was very young — by Seward and a dozen other men who stood large in the public eye.

But he forced Douglas into a position where he was obliged to offend the Democratic sentiment of Illinois and lose the Senatorship or to offend the pro-slavery sentiment of the South and lose the Presidency. No shrewder move was ever made by any politician in our history. At the same time he formulated the coming struggle with a clearness that is not surpassed in all political literature and revealed his statesmanlike grasp of the two great principles that were soon put at stake — the abolition of slavery and the integrity of the Union. Douglas dodged and wavered, and made brilliant thrusts and parries, and performed oratorical wonders. Lincoln's arguments worked as a force of nature works — ruthlessly and without a shadow of turning. The moral earnestness of the man was too great for the oratorical skill of any opponent.

For these reasons, this debate before country audiences in a "Western" state, before the day of telegraphic reports of such events, gave Lincoln for the first time a national reputation. Douglas won the Senatorship, but Lincoln had now done the work that two years later won him the larger prize. The growing marvel of Lincoln's speeches is, as a teacher of literature lately expressed it, where did he get such a style? The answer is, from the moral strength and from the common speech of the people. He was as earnest as he was skilful, as sincere as he was logical. It was character, working with clear thought and straight speech.

Earnestness was the main note, an earnestness beside which the political speeches of our time are Douglas rhetoric at their best and commonplace exhortation at their worst. And yet, have we not subjects large and important enough, if we had the man, to give such an immortal opportunity now?

THE GOVERNMENT AS AN INDUSTRIAL PEACEMAKER

TWENTY-TWO months of peacemaking between the interstate railways and their men, without a single failure, when strikes were imminent, shows the usefulness of the Erdman Act. This law provides that, whenever a labor dispute threatens to interrupt the business of an interstate carrier, either the railway or the men may appeal to the chairman of the Interstate Commerce Commission and the Commissioner of Labor, who together become a board of mediation and must try to bring about a friendly adjustment. The board has power to compel the attendance of witnesses and administer oaths, also to start arbitration proceedings. But thus far, simply by acting as peacemakers, the two commissioners have settled two threatened strikes that might have been of far-reaching seriousness, and have brought the parties to other controversies into a peaceable solution of their differences.

Early in 1907, all the railroads in the United States and Canada west of the Illinois Central and the Great Lakes, with the exception of the Denver & Rio Grande and the Colorado Midland, became involved in a dispute with their trainmen about wages and hours. Committees representing the roads conferred with the organizations of conductors and trainmen for two months without result and the men voted to strike. Fully 100,000 men were going out and the general industry of the West would have been seriously interrupted. The committee for the roads applied for mediation. Messrs. Neill and Knapp went to Chicago.

There forty-three powerful railroads and an army of trainmen were opposed to each other in what seemed sure to become a titanic struggle. The railroads were represented by ten officials. There were 180 trainmen — four from each of the forty-three roads and eight of their general officers. Some of the trainmen were for striking out of hand. The first conference was begun at ten o'clock in the morning. The mediators met alternately first with one side and then with the other in executive sessions. Listening patiently to all that was said on both sides, the mediators gradually found common ground to each side and proposed concessions. While preserving inviolate from each side what had been disclosed by the other, they were at length able to submit the basis for an agreement which both the railroads and their employees accepted. This was at four o'clock in the morning after six days and nights of strenuous work.

Trouble on the Southern Pacific, a threatened strike on the Denver & Rio Grande, and more difficulty on the Missouri Pacific were averted by the peacemakers at the request of the railroads. Last spring came the threats of the southeastern railroads to reduce wages. Nearly every railroad south of the lines of the Chesapeake & Ohio and east of the Illinois Central had served notice of reductions. The men were going to strike. The trainmen in this case applied for mediation. At the instance of the board an armistice was arranged and the roads agreed not to reduce wages till the question was decided.

Since December, 1906, this mode of mediation has been invoked in more than sixteen serious crises, and in each case a big strike was averted. Twice mediation was successful after strikes had been declared. Arbitration has been necessary but twice, yet, when the act was passed, the mediation feature was secondary and arbitration thought to be the essential part of it.

THE PANIC, A YEAR AFTER

A YEAR ago this month the panic came. Thousands of business men whose credit had been weakened by business excesses, extravagance, or mere misfortune, are still prostrate. Yet the recovery in the business world has been marvelous. No man who watched the tumbling of the New York banks in the late autumn of 1907, and who felt the structure of the banking world trembling, dreamed that within twelve months nearly every one of the failed banks would have resumed business. Yet that is the situation to-day, a year after the panic.

Thirteen New York banks, which owed to 50,000 depositors nearly $90,000,000, failed in the panic times. All of these, except the International Trust Company and the Oriental Bank, have resumed business. The Oriental has paid every cent to its depositors, and can pay its stockholders $200 per share. The International was a new concern and had practically no deposits. The public has lost nothing.

The rest, from the powerful Knickerbocker Trust Company to the little Jenkins Trust Company in Brooklyn, have regained solvency. Most of them opened their doors on condition that the depositors should not withdraw more than a small percentage of deposits at once, and the rest at stated intervals. To-day a depositor in any one of these banks may consider himself quite safe. The panic, in fact, has slipped away from the banking world. Instead of the terrible deficits and the weakened resources of a year ago, the rank and file of the New York banks to-day boast of swelling surpluses, of cash piled up in huge reserves, of growing strength, of power unimpaired. That the panic has resulted in a betterment of banking methods and morals there is no doubt. The trust companies are no longer silent partners in the financial world. They, like the Clearing House banks, make weekly reports of their condition. The law, the manners, the methods, the morals of the banking business — all have changed for the better.

The banks of the little people, the savings banks, withstood the panic with little trouble. They refused to pay on demand, it is true,

but none went down. To-day they stand in the highest honor. With one or two exceptions, they pay their depositors 4 per cent., and even the poor, the most easily frightened of all financial classes, know that their savings are safe.

Of the men in New York whose names were smirched, two prominent presidents of financial institutions killed themselves rather than face the result of the collapse. Another, the head of the family responsible for the failure of several institutions, died of apoplexy. He lived only to see the resumption of business by nearly all his banks. Three of his sons have been indicted for their parts in the management of the banks. Other men have been indicted for irregularities, forgery, and larceny in connection with another bank. Two others, responsible for "high finance" methods in a chain of New York banks, have been fighting in the courts for a year, and the end has not yet come. Such is the inevitable personal toll.

Of the other great catastrophes of the panic days it is not possible as yet to tell the outcome. The Chicago Great Western, the Seaboard Air Line, and other smaller railroads are still in the hands of receivers, and seem likely to stay there for some time to come. The entanglements of the Gould railroads are beyond description; but the receivers are of the class called "friendly," that is, they largely represent the Gould interest itself. The Erie escaped bankruptcy by the mercy of Mr. Harriman. Half a dozen other systems are still in jeopardy.

The most spectacular failure in the manufacturing world was the collapse of the Westinghouse Manufacturing Company. The plants are to-day at work; but there has not yet been a complete readjustment of the financial affairs. This may be looked for soon, perhaps. The Pope Manufacturing Company's plants also are running, but the receivers continue in possession. They are the men who ran the company before it failed.

The industrial world has not nearly recovered from the panic. At the moment there are no great failures; but dozens of industrial companies that a year ago were paying large dividends have either ceased to pay them or reduced them. There is little inclination by the industrial magnates to go back to the old plane of lavishness in manufacture and in paying dividends. They are conservative, cautious, watchful. One may expect that many who have not yet reduced their payments of dividends will do so within the next few months, unless there is a decided upward swing in the volume of business.

On the whole, it is well yet to be conservative. There is sound reason for confidence in those whose resources are unimpaired, whose business maintains itself to-day and has weathered the storm without crippled working capital. But there is no room for extravagance, for over-extension, for inflation. No man may yet say how long a pull it will require in the business world to regain all the ground lost during the last twelve months.

THE FLEET'S TRIUMPHS

IT IS now hard to recall the silly and violent criticism of the Administration that was made last year by the "anti-Imperialist" press for starting the fleet around the world. You might have thought that by this time we should have been engaged in a war; for what could such a cruise be but a threat? All which proves that it is hard for provincial eyes to see large horizons.

The voyage around South America was distinctly pacific. The visit to the Pacific coast gave a satisfaction that was as peaceful as it was patriotic. The visit to Honolulu caused the people of the Hawaiian Islands to feel as if they were regarded as a part of the United States. The fervid demonstrations in New Zealand and Australia were expressions of international good-will. The reception of the fleet in Japan is a Japanese-American jollification and an occasion for a better understanding of one another. War or threats of war? They are even less in the minds of men of any nation than they were when the fleet started. The whole cruise has distinctly made for peace and for national unity and for international understanding. Nothing more is heard in Central and South American States of a fear of aggression by the United States; the people of the Pacific states are gratified that their coast is regarded as a part of the country; the inhabitants of the Hawaiian Islands feel nearer to us; the English in the Southern Hemisphere know us better; and the Japanese are more friendly rather than less. Many diplomatic problems of the future will be made easier by this cruise.

And there have been purely practical gains. Naval experts say that, short of a campaign of real fighting, nothing could compare with

this experience, for teaching officers and men how to handle warships. The skill gained already is of inestimable value. We have proved that our warships are well constructed. Foreigners have taken note of the same thing. There have been big-gun practice and evolutions. Our naval constructors have gained valuable suggestions for making new ships even better. And last, but not least, the work of the bureaus at Washington that provisioned the fleet and that arranged for supplying it with coal and other necessaries along the way has been particularly gratifying. The navy has gained as it could not have gained by any other experience.

ARE WE TO ABANDON PACIFIC TRAFFIC?

INFORMAL statements have come from those who control the American trans-Pacific traffic that this business will soon be abandoned by them. These statements have been more or less enigmatic in form; but their meaning is that the fleets of the Pacific Mail Steamship Company, of the Hill railroads, and of the other more or less independent companies are likely to be sold sooner or later to the Japanese.

The reason given out is the demand by the Interstate Commerce Commission that the transcontinental railroads shall publish their rates from American inland points to the Orient in such a way as to show how much of the rate is charged for inland transportation and how much for the ocean voyage. The roads declare this to be a hardship, because, they say, if these rates are made public the shippers from inland points to the Pacific Coast would demand that their rates be reduced to correspond to these low export rates. This reason, it may be noted, is published in an election year. It is comparatively trivial — is, in fact, rather an excuse than a reason for such a desertion.

The true reason for the alleged despair over the Pacific trade lies deeper. It is the fact that Japan can handle the traffic at a profit in her subsidized ships at rates that leave no profit at all to the ships of American, German, or British owners. This is plain enough. One may read it in the annual reports of the big German lines, some of which have taken part of their fleets out of the trade. It is written even more plainly in the records of the great Peninsula & Oriental Steamship Company, whose Chinese service has been cut to pieces by Japanese competition. A year ago, when Mr. Hill's monster steamship, the pride of our mercantile marine, was lost on an Oriental coast, he said that the ship would never be replaced because it would not pay.

Since the Japanese can outbid the other maritime nations in the race for Pacific trade, an important question of the future in the commercial world is, how far Japan may go in this victorious war for commerce. A subsidy, sailors' wages, their disciplinary system, perhaps even the individual appetite of the common sailor — all these and many other facts contribute to their success. Will they, for these economic reasons, control Pacific commerce for the next half-century as Britain has controlled the trade of the Atlantic for the past half-century?

It is not likely — if a guess be warranted without definite information — that Messrs. Hill and Harriman will soon sell their Pacific lines, if they ever do; but selling them would be a logical result of present conditions. The Japanese can do this service more cheaply, and no sentiment of national pride will in the long run stand in the face of a great economic fact. The first duty of these men is their duty to the stockholders of their companies; and, if the interests of the stockholders continuously demand the sale of the ships, the sale will sooner or later be made.

THE SPREAD OF MUSICAL AND DRAMATIC TASTE

A NEW YORKER in a little Montana mountain town recently found that Ibsen's "Ghosts" was that night to be played at the opera house. He went to be amused, but he found that the play was well acted and the audience knew what was good. The next night he saw a "burlesque" received with equal cordiality. Mr. William Archer on his last visit to the United States saw Mr. Shaw's "Man and Superman" received with keen appreciation in Pittsburgh. "Imagine it in Middlesbrough or Hanley!" he exclaimed. And later he saw other good plays, for which it would be impossible to get paying audiences in England, well received in several interior American cities.

The growing breadth of popular dramatic intelligence is shown by these incidents. The most successful piece of New York's latest season was a play wholly without "love interest," buffoonery, or stage pageant, in

which the main appeal was a moral one, for the "tired business man" was entirely forgotten. The crowded houses that saw Mr. Kennedy's "The Servant in the House" were willing to pay to see spirited acting of the work of a playwright who presented a vital subject with some imagination and sincerity. The success of the Ben Greet players with Shakesperian plays all over the country and the Chicago Art Institute's patronage of Mr. Donald Robertson's performances of classics from the French, Italian, Spanish, Norwegian, and German, as well as six modern American plays, show the same growth of general taste. In New York the New Theatre is to try its interesting experiment in presenting plays on their real merits rather than mainly on their merely popular qualities.

II

A broadening of musical appreciation is also evident in most parts of the United States. New York is spending seven millions a year for music. It supports two great opera houses, eight symphony orchestras, numerous choral organizations, and enjoys many score recitals and much chamber music of a high order. Its season is fuller of musical events than even Berlin's. Philadelphia is now to have a full season of opera. The establishment of a national league of opera clubs is promised. The foremost musical artists of Europe are touring the country from coast to coast every year, sure of good audiences. Small towns are founding annual music festivals. Mr. Frank Damrosch says that this growth of musical spirit foreshadows the coming of a distinctive American music. Better than that, it means that the American, from coast to coast and in many ranks of life, is getting to be much broader than his day's work.

OUR GREAT HERITAGE AND THE USE OF IT

THE Savannah River lately flooded the city of Augusta, Ga., destroyed a great deal of property, and drowned several people. In Georgia and South Carolina the flood had more than sixty victims. In North Carolina the Cape Fear River made many persons homeless at Fayetteville and washed away crops and the very land they grew on.

These acts of violence by these rivers were done in the inevitable course of Nature's protest against man's treatment of the land and the streams. The Savannah's headwaters are in the Appalachian Mountains where the rainfall is exceptionally heavy; and under normal conditions in the rainy season the river has much water to carry off. But the growth on these mountains was likewise heavy; and, before much of it was cut away, it used a large proportion of the rainfall, and, after using it, let it out gradually into the streams. This was Nature's way of making and keeping that most varied and valuable growth, which was one of the wonders of the whole earth. This natural arrangement was effective while the forests remained.

But, when the white man came and cut the trees indiscriminately and continued to do this for two hundred years, he made the rivers mere wild agents of Nature's revenge.

Now, when the rain comes, the floods do literally descend. There is not enough growth to hold the water back and to distribute it. Year after year these increasing floods remind us of the abuses we have wrought and of our duty to restore this growth. Yet, so far, an ignorant and narrow old man in Illinois, whom the newspapers call "Uncle Joe" and whom the House of Representatives accepts as an over-lord, prevents us from saving parts of these Southern states lying east and west of the Appalachians from progressive destruction. Surely "politics" is a most artificial and obstructive device to keep a nation from its duty.

II

But we move forward in spite of powerful ignorance and the old-fashioned tyranny of village narrowness. The Inland Waterways Commission, which the President appointed to find a method for making our rivers more serviceable and less destructive, is conducting an exhaustive investigation. Its activity led to the famous Governors' Conference, which gained the active support of most of the state executives and aroused the people to understand the necessity of saving our natural resources and of using them better. From that conference followed naturally the appointment of the National Conservation Commission, which is compiling a national natural inventory, which will be a guide for the future. For the first time in our history we are making an intelligent and comprehensive effort to understand the land that we live on. Many of the members of this commission are men who have devoted their lives to the study of the right use of our resources.

When the inventory is completed, we shall know how much of our great heritage we have left, and how best to improve it. The commission will point the way for its transmission to future generations in an improved state. And the despicable and narrow conception of public life shown by Old Joe and his like must yield to more enlightened ideas of public duty. We may have literally a new earth, if we wisely work to make it so.

III

Following still further the policy of building up the land, the President has carried out a long-formed plan and appointed a Commission on Country Life, with Professor Liberty H. Bailey, of the New York State Agricultural College at Cornell University, as its chairman; and he has instructed this commission to report to him before the end of the year what may be done to further the better organization of country life.

Social progress (in the widest meaning of the words) has naturally been most helpful and various in town life, especially in the United States because of our great area. But this need not always be so. On the contrary, there is a fair chance that, as soon as the applied sciences that have to do with the agricultural pursuits and the coöperative methods and machinery that save waste and increase profits and efficiency — and pleasures too — shall be generally operative in rural communities, there may be the same tendency to move from towns to the country as there now is to move from the country to towns. The time is in sight, sparse as our population in most parts of the United States yet is, when capable people may receive more for their toil, may have a better social life, a better intellectual life, a better family life, and in general a more profitable and independent and saner life on farms and in villages than any large class now has in our cities.

For the rapid growth of our cities has been a result of the sudden coming of cheap transportation. It is not a normal nor natural nor well-rounded growth — a sort of mushroom growth, rather. The great trade, the great fortunes, the unprecedented conveniences that the sudden coming of railroads made possible, have not brought the final form nor the consummate flower of civilization in this Republic. It is rather a passing phase, and other phases far more sane and just and wholesome must come. The material civilization that we now have is, in fact, in a large measure, the result of an ignorant and greedy spoliation of our natural wealth, of a feverish haste to grab and to become rich, of the first rough use of the power of organization and coöperation. It is unscientific, often unjust, the product of the industrial effort of men who found themselves on an incomparably rich continent. We have yet been here only a little while; and during that time we have come into the use of new social forces that we are yet making the first rough experiments with — railroads, for example, and corporations. We have not yet made our rivers navigable, nor even made them safe; we do not yet so till the earth as to keep its virginal fertility, to say nothing of constantly making it richer; we have just begun to build roads; we yet permit much of our water-power to run to waste; we have just discovered (and by no means yet fully applied) such things as the telegraph, the telephone, the trolley car, the airship, to say nothing of the mail service, the savings bank, the public school, the wider Christian use of the churches in applied social human helpfulness. We have hardly yet learned how to sell cotton, corn, and wheat scientifically, to say nothing of butter and eggs and cheese, which we continue to import. Indeed we have not yet built good houses for farm-laborers nor learned the whole difference between good stock and scrub. And yet in many parts of the land the farmer is already the most independent man; and he has achieved his independence on a constantly decreasing yield per acre.

This commission and many subsequent similar bodies and wiser and wider agencies — governmental, industrial, social — will help toward the organization of country life for many generations until the character and fibre of civilization in the United States will become a very different thing from the rough-and-tumble and uneven life that we now have.

And the point is, that the people now begin to feel such an impulse. What the Government may do — national, state, municipal, county, or township — we shall find out more fully by further experiment. But we have gone far enough to make it clear that governmental activities in the future will mean something better than the old worn-out wrangle about the tweedledum and the tweedledee of party doctrines that touch men's lives

chiefly by confusing their minds. The state of the future — our democracy in the future — will concern itself more and more with the practical scientific problems of wholesome living, of profitable work, of just coöperation. And these commissions of the President's creation look in that direction.

A PAT WORD ABOUT SOCIALISM

PRESIDENT ELIOT of Harvard recently said:

"Socialism has not a chance in this country, because wealth is too diffuse. If a man has $100 all his own he loses all ideas of sharing it with anybody else. American people are opportunists; they will adopt institutions, socialistic or not, if they are practical, but they will not follow an idea beyond the stage where it becomes inefficient. Human society is based on self-interest, shaded and concealed, perhaps. To have socialistic society, where every one thought first of the rest of the world, you would have to change, not society, but humanity."

The socialist who wonders why his doctrine is not more rapidly accepted will find the reason in this paragraph. The man who fears that socialism is going to sweep the country also will find in this paragraph an antidote to his fears. A prosperous, practical democracy is capable of taking this thing or that thing and many things from a socialistic programme without the slightest danger or the slightest inclination to take the whole programme.

You may read many books in favor of socialism or opposing socialism. You may make many plans for the reformation of society. You may build as many theories as you will; but, when you come to consider the practical workings of American life, you will not get a much more accurate chart of future events than this.

We do not live by any philosopher's plan or by any book-made scheme. A patch of anarchy on a cloth of orderliness, a piece of high wisdom here and a piece of low folly there — we take what we will or what we must for the instant need; and the theorists of every sort must do the best they can to catalogue or to coördinate such political and social phenomena as exist at the same time in Massachusetts and in South Carolina, in Oklahoma and Colorado. This is hard on the theory-builders; but the people seem to thrive reasonably well by these unorderly and unclassifiable zigzag methods of working out a democracy that it is equally easy to praise and to blame, to fear and to trust, according to one's mood. The best of it all is, one's fear or trust or blame or praise does not in the least touch the orbic quality of our swing forward.

A THREE HUNDRED MILLION DOLLAR LOSS FROM LACK OF SYSTEM

ACCORDING to Mr. Harrington Emerson, an authority on several branches of engineering, the railroads of this country waste more than $300,000,000 every year by petty leakages. He believes that this waste, or a large part of it, could be saved by the proper organization of railroad operations. The waste consists of thousands of small items, such as the stealing of coal, unskilled supervision in the shops, petty jealousies between officials, red tape, duplication of tools, and similar items. He cites a single large shop in which the annual tool bill was more than cut in half by one year's careful supervision.

Practical operating officials of the railroads are not disposed to dispute Mr. Emerson's figures. They admit that there is an immense amount of waste. Here and there, notably on the Harriman lines, one may find men who claim that everything possible is done to cut out this waste. Two years ago Mr. Harriman undertook to standardize his entire equipment, simply in order to eliminate an immense waste in the repair shops and in the interchange of cars and engines. Several millions of dollars have been spent in this effort, but as yet the annual saving cannot be accurately measured.

That some of this waste can be saved is undoubtedly true. The railroad men, however, declare that a large part of it turns upon the efficiency of the individual workman. That, they say, is the real railroad problem. There was a time when railroads could get efficient American workmen to labor on the tracks, in the shops, in the handling of freight. To-day the class of labor on the roads has deteriorated beyond conception. The lowest class of foreign laborers demands, and must get, the highest wages, wages that ten years ago were not paid to the best of American laborers in the same line of work. Until this condition remedies itself, the railroad men say, the larger part of the annual waste is beyond any effective remedy.

This whole controversy emphasizes the

need of proper training for the semi-technical workman. The spread of technical schools will produce, as time goes on, a host of men fit for the shops, for the supervision of freight traffic, for the handling of track work. Only a few years ago the big Canadian railroads coöperated in establishing a sort of railroad school in connection with a Canadian university. To-day they draw from it dozens of young men fit for the railroad service. As the years go on this process will result in increased efficiency all around. Our own technical schools, the large locomotive companies, and the big car-building companies are graduating every year hundreds of young men for the service of the railroads. This is the ultimate solution of this problem of waste.

But there is need of more system on the railroads. The railroad world needs more presidents like Mr. Harriman (his financial activities apart)—men who personally go out and watch their railroads, keen for every improvement in operating methods, eager for traffic efficiency. The railroad field has not been cursed so much with dummy directors as it has with dummy officers. The railroad kings of to-morrow must know their railroads better than the kings of yesterday knew theirs.

THE GENTLE ART OF STORY-TELLING REVIVED

WHILE we are training children for all sorts of skilled trades, it is a matter of no small satisfaction to record an experiment that has for its object the revival of the ancient art of telling stories — for it is an art.

Last December Miss Anna C. Tyler formed a "Junior Story-Tellers' League" in the children's room of Pratt Institute Library, in Brooklyn. Out of an audience of from forty to sixty children, two Junior Leagues were formed. They all assemble regularly to hear the evening story, and the leagues meet afterward.

Each league elects its own officers and conducts its own meetings. The president takes the names of seven or eight of the children present, most of whom volunteer to have a story ready for the next meeting, and of those so chosen there have only been a few who have not been ready with a story when called upon. They know they can call upon Miss Tyler for help, but seldom require her services.

There has been but little attempt to dictate to them the kind of story that they shall tell, the director's only request being that they shall not tell silly stories. Some of the best Norse, Greek, and Indian myths; animal and nature stories by Kipling, Seton-Thompson, Charles Dudley Warner, and John Burroughs; "Macbeth," "Evangeline," "The Lady of the Lake," "A Yankee at King Arthur's Court," stories of adventure, and some of the most famous of the fairy tales have been told — and nearly always well told — by boys and girls from ten to fifteen years old. The children are learning to read — the careful search through book after book for the story they think will be the best to tell. The final selection is always their own.

"After the cycle of eighteen stories from King Arthur had been finished," says Miss Tyler, "the children asked me to tell them Indian, detective, and ghost stories, and tales from 'Arabian Nights' — to be told in that order, and I was not to tell stories that they would read for themselves. The Indian myths were not so difficult to find, but good detective and ghost stories were another matter; at last I remembered the delicious thrill of those wondrous tales of Poe. I began with 'The Purloined Letter,' telling it, as it is written, in the first person, but 'skipping' the parts that I knew would weary. Then followed 'The Black Cat;' then Stephenson's 'The Bottle Imp.' So fascinated were they that they voted to change the evening of fairy tales for another story by Poe, and the story they chose was 'The Pit and the Pendulum.' By the children's urgent request these stories were told with the lights turned low, as the best substitute for firelight, and it is hard to say whether the absorbed young listeners or the story-teller enjoyed those hours most."

The leagues have voted that their story-teller shall tell them Indian stories next winter, and she hopes, therefore, by beginning with the Indian myths and folk-lore, then telling of their life, warfare, and famous battles, to bring her boys and girls to a vivid interest in reading history as told by Francis Parkman.

A MONUMENT TO GENERAL CUSTER

THE admirable idea of commemorating our national heroes by monuments that are real works of art continues to gain ground in America despite occasional setbacks from ignorance or favoritism. We print in this issue the first reproduction of the noble statue of General Custer, by Edward C. Potter, which the State of Michigan is to erect in the town of Monroe, where Custer lived and from which came many members of the company that he commanded during the Civil War.

A LITTLE STORY OF A TEACHER

IF you were to go to the town of Spartanburg, S. C., and spend an evening in the house of any man who lives there, the conversation would be sure to turn on Dr. Carlyle; and, if you should happen to go to the home of anyone who has a direct personal interest in Wofford College, which is situated at one end of the town, the chances are that most of the talk of the evening would be about Dr. Carlyle. If you happened to be at the college at a commencement time, you would hear a reverent and affectionate allusion to Dr. Carlyle in every public address, and you might see every class that comes back to its reunion go to his house in a body to express their affectionate obligation to him.

And who is Dr. Carlyle? A man who went to the college as a teacher of "astronomy and moral science" in 1854, when it was founded, and who has been there ever since, a part of the time as teacher, a part of the time as president, and again as teacher. He still meets his classes once or twice a week even at his advanced age. Doubtless neither philosophers nor astronomers regard him as a great contributor to their departments of learning. Yet it is doubtful whether there be an astronomer or a philosopher at any institution or in any community in our whole land who has exerted so strong an influence upon the young men who have come in contact with him. They do not say that he taught them astronomy or that he taught them philosophy, but they do all bear testimony to his giving them in greater measure than any other man a right adjustment to life and a moral uplift — a kind of influence that the oldest of his pupils, who are now themselves far on in middle life, remember with an affection that has grown since their youth; and, throughout the area of the college's influence, men and women say, "We must send our sons to Wofford College because Dr. Carlyle is there."

He is now an old gentleman, of great dignity of character and of speech, of wide if desultory reading, but not of the modern type of scholarship. He is not an orator, and yet, until a few years ago, he had the habit of delivering a public lecture once a year or oftener in the town; and anybody who did not go to hear him lost standing in the community by his absence. These lectures were lay sermons but everybody received them as a sort of half-inspired deliverances. He has never held a public office, except that he was a member of the Secession Convention in South Carolina and is the only surviving member but one, and he is said to have called this adventure a piece of boyish foolishness. He was never a preacher, but always only a teacher, and what he taught best was neither science nor literature, but character.

The story is told of a man in Texas who met a visitor from Spartanburg. The first question he asked was, "Do you know Dr. Carlyle?" "Yes," said the other. "Are you going back to Spartanburg?" "Yes." "Well, I wish you would give Dr. Carlyle my most affectionate regards, remind him that I was dismissed from college for misconduct in spite of his effort to save me, tell him that I came to Texas and for several years I tried my best to go to the devil by various roads, but that I did not succeed, because before I got far I always saw his finger pointed at me and heard his voice, and they restrained me. He may be glad to hear this."

Possibly the great business of teaching may get some hint from this simple story.

BIG LOSSES FROM SMALL ERRORS

SEVERAL years ago a private capitalist of the South saw a good chance for a small railroad to run from a point on one of the big systems into timber lands. He and his friends built it. Before they built they carefully went over the rates with the bigger road and obtained a fair division of the through rate from the timber region to the nearest large market. They covered all the points where it seemed likely any error of judgment might creep in. Then they went ahead with confidence.

They bonded the new road for 80 per cent. of its cost, subscribed for the bulk of the bonds themselves, and paid the rest of the cost and a fair amount of working capital to the treasury.

The property was well built, conservatively capitalized, well planned to get good tonnage, and in every respect apparently well able to take care of itself. The first year yielded a nice little profit — a thing unusual, for it generally takes several years to make profits out of a railway. They counted themselves lucky.

But the bigger railroad had also kept careful watch over the business of the smaller. The steady movement of out-bound traffic and the growing in-bound traffic made the new property worth watching. The bigger road began to figure on getting hold of the smaller. A man came to the president of the little road, talked of buying his stock, and wanted a price on merely enough stock to give control; finally, he wanted to lease the small road, letting the stockholders keep their stock. All these proposals were refused, because the president and his friends wished to stay in the railroad business.

From that time on trouble piled up. The little railroad could not get cars from the big railroad. Its own few cars, filled with lumber, were hauled away by the bigger road, and not returned for many months. The shipments of lumber fell off quickly, because the small road could not get its cars. On top of this came what the bigger railroad called a "readjustment" of the rates. The favorable rates given in the first place were dependent on the small road's furnishing a certain amount of freight each month to the large road. In the fourth month after the refusal of the offers the little road failed to deliver the stipulated number of cars of freight. The bigger road cancelled its agreement, as it had a legal right to do.

The new agreement was severe. The managers of the big road made various apologies, but all the profit was squeezed out of the lumber business. The new road found that it could not take a car of lumber from the forests to the terminal except at a loss of ten dollars a car.

At last the inevitable came. The little road was bankrupt. It was on the very verge of announcing this fact, when help came. An Eastern banker, who had watched the whole proceeding, came down and talked to the four biggest stockholders, who were also large bondholders. He told them that, of course, they had simply played into the hands of the larger road; that the result, if they let the road fail, would be that the larger road would get at half its value a useful little railroad; and that they had better let him help them save themselves. He pointed out the way.

Twenty miles beyond the terminus of the little railroad, to the south, lay a good harbor, with ample shipping facilities. This town wanted every possible chance it could get. It lay within reasonable distance of New Orleans and other gulf ports. The Eastern banker proposed to build the little road through to that town. He asked a good round commission for the money he was willing to furnish; but he was willing to wait for it until the road was finished. He also stipulated that in case the road never was finished, but was bought out by the larger road at a good price, he should have a share of the profits.

A month or so later, the harbor town voted on a proposal to give the railroad a right of way to its docks, and various other privileges. The managers of the big railroad saw a great light. The little helpless railroad that had been absolutely at their mercy, dependent upon them for its ability to move its freight out of the woods, intended to reach beyond their lines and secure a new outlet. They did not know whence came the money — and they do not know to this day.

A week later, before the little road had moved a shovelful of dirt in its new construction, the big road made an offer to the little road that would have let the stockholders and bondholders of the small road out of their venture with a profit, but not enough to pay the Eastern capitalist his commission. That offer was refused. Three days later, a gang of men went to work on the surveys. Not long after, the big road raised its bid, and again it was refused. Work had begun on the right-of-way before the larger road finally made an offer that was big enough to close the bargain. The builders of the road received a good profit on their investment. The Eastern banker got his commission. The big road got a little feeder that easily pays its way.

Here was an investment, well-conceived, honestly made, wisely administered. But it came near to being a complete loss of the whole amount invested, merely because the investors overlooked one fact. They placed themselves entirely at the mercy of a bigger, more powerful, and selfish corporation. Of

course, every experienced builder of freight lines, either steam or electric, ought to know that he has to provide for competition at one end, at least, if he hopes to live. It is perfectly astounding to find how many people forget this cardinal principle when they are carried away by enthusiasm.

The lesson of this experience is not alone for the railroad builder. It may come home at any time to the holders of the bonds of railroads, of industrials, of electric railroads. Is the company into which you have sunk your money able to stand alone, or is it dependent entirely upon some other and larger, corporation? Is it, perhaps, dependent upon some one man? Is it a trolley line that earns nine dollars out of every ten by carrying workmen to the one big industrial plant in your town? Is that plant sound, or likely to fail and throw its men out of employment?

The Westinghouse Electric Manufacturing Company failed last year. It did not close its plants. Yet it would be hard to count the number of small manufacturing concerns that have been in trouble since that time merely because the whole of their business consisted in selling various things to the Westinghouse. At Schenectady, one may find the same condition of affairs, except that the two big industrial plants in that town are stronger, perhaps.

Anyone who puts money into a business enterprise must take much risk. A case just reported by our consul at Saltillo, Mexico, may serve to point this moral. A firm in the United States made a shipment of what it called "cotton shirts" to a merchant in Saltillo. When the shipment reached the border, the customs officers discovered that some slight trimming of silk, some silk stitching, had been used in the making of the shirts. They held the shipment four months, increased the duty beyond reason, and fined the merchant heavily for false billing. The shirts that were intended to sell at $2 cannot be sold under $5 at a profit. It was just a little slip, probably a thoughtless slip. It is a characteristic of little slips that wreck great enterprises.

I have heard of a successful little railroad that paid good dividends to its builders until one night a sleepy dispatcher, who had been at a dance the night before, let two passenger trains meet head-on. The damage suits not only wiped out the profits of the company but brought it perilously near the hands of the sheriff. A new cotton-goods exporting business in this country went to pieces because its first big shipment to a Chinese customer was baled in such a way that it could not be carried conveniently on a camel's back.

Perhaps the worst mistake that an investor can make is to become possessed of the idea that he should back a new invention. Just at the moment it is airships. A little while ago it was talking-machines. Thousands of people in all the civilized countries of the world lost much money trying to reap fortunes from the much-heralded field of wireless telegraphy. It would be quite impossible to estimate the amount of money that has been thrown away by usually sane and sensible people during the past ten years in an effort to make a substitute for the cable and the telegraph and the telephone.

It is well to remember that the flood of new inventions never ceases. As I write, there lies before me the list of letters patent issued by the United States Government for one week. It includes about eight hundred and twenty inventions. Some of them seem quite trivial, some quite impressive. It is safe to say that half of the inventors hope to sell their patents either to companies or firms that to-day are in business, or to people who will form new companies and try to sell stocks based on these patents or products made by them. Here is a field in which the promoter is to-day reaping a harvest almost as rich as the harvest he gathered from the victims of the mining craze two years ago.

A little company, floating a patent that rivals a patent held by some large concern, is in a position almost hopeless. A telephone attachment, for instance, or a telephone improvement, if you will, can have little or no market unless it is taken up either by the big manufacturing concerns that supply the American Telephone and Telegraph, or by the other companies that make telephone material and sell or lease it to the many independent telephone companies. A mechanism for turning swing bridges can have little value to its inventor or to anyone else unless it be taken up by some firm or company that builds swing bridges.

Every invention, no matter how brilliant its future may be painted by its promoters, should be tested in many ways before a man should venture his money in it. When he is satisfied that the invention is good, that it

cannot be choked to death by some great corporation or other interest, that it has a market by itself and is actually sought in some great wide field, then he has half-finished the proper investigation that he should make preliminary to an investment. The other half, the harder half, remains. He must find out who is in with him. The name of the inventor means nothing. Mr. Marconi was in no wise responsible for the swindles that were perpetrated in the wireless telegraph field during the past five years. One must find out the names of the men who are selling stocks or bonds; who they are; what other companies they have formed; how men fared in these; how much personal risk they have in this venture; how their statements are regarded in trade circles and in financial circles.

These questions are hard to solve. Nine men out of ten, if they are attracted at all to the new concern, make some slight attempt to find out the facts concerning the men who are managing the promotion. They write to the banks referred to in the prospectus. They get a nice little letter in reply, somewhat to this purport:

"Mr. Blank, referred to in your letter to us under date March 11th, has had an account in this bank for some months (or years). We have always found him a satisfactory depositor and customer."

They drop the investigation at that point. Of course, such a letter means nothing at all. It does not pledge the bank to the honor of the promoter. It does not mean that the promoter is clean. In all probability it means that he has been successful enough to have a bank account, and no more. If Raisuli kept his money in a bank he could get a similar letter written about himself by simply asking the bank to write it. Of course, not all banks will lend themselves, even to the slightest degree, to this trick, but it is general enough in this country to make it worth while to guard against being misled by it.

There is no general rule by which to judge the honesty of promoters. A man with common sense must apply his common sense to this problem and it will then solve itself; but a man without common sense might have all the machinery of a mercantile agency at his command and yet fail to solve it. If general advice is of any value, my advice would be to use the same common sense in making a business venture of this sort that you would use in going into partnership to pack apples, to grow bananas, to produce rubber, to manufacture machinery or to follow any other line of industrial activity. For, after all, the stockholders in a purely business enterprise are really partners. If one is inexperienced, innocent, and foolish, and the other is experienced, dishonest, and wise, it takes no prophet to guess the result. C. M. K.

LIFE INSURANCE AS A BUSINESS ASSET

THIS is the story of a young man who bought a home and arranged to pay for it by instalments of $1,000 a year for ten years, in addition to a cash payment. He had little cash, and his life insurance at the time was large enough for his wife and child to live in fair comfort if he should die. His desire was to leave them a home also.

The friend from whom he borrowed the money to pay for the house agreed to receive the money back in equal instalments, made up of the principal, and interest at 5 per cent. Since the buyer was a man on a salary, he was doubly anxious to make the loan secure in case of his death.

He took ten term life-insurance policies. The premiums, added to the interest on his loan, brought that interest up to 6.05 per cent., but for the added interest burden he gained double protection — a safeguard for his family, and safety for his friend's money.

This man was twenty-eight years of age, and he took out his policies in a straight-life company, which charged him $10.46 for every thousand dollars of insurance for each year. He found that many companies doing a mutual business would have charged him more at the outset, but would have cost him slightly less if they paid the dividends that they estimated. He did not question their good faith nor their statements, but he wanted to know exactly what his annual cost would be, and

for that reason he chose the direct payment of a fixed sum, rather than the payment of a larger sum with a possible reduction through dividends to be received.

His original idea was to take out a policy for $10,000 to run ten years. When he talked it over, however, he took the advice of the agent, who pointed out that his loan was to be reduced by $1,000 each year, and that, if he kept up the whole $10,000 of insurance for the full ten years, he would be "loading" his interest account abnormally in the later years; for, in the tenth year, for instance, he would have only one $1,000 loan outstanding, but would be paying $104.60 in premium on the insurance policy. He, therefore, took the ten policies. He plans to let one lapse at the end of each year, carrying nine in the second year, eight in the third, etc., to correspond to the amount of loan still unpaid.

Let us look at the possible results of this policy. Suppose that he lives the full ten years, and pays the maturing loan, and the premium on the insurance policies every year. At the end of the ten year period he holds the house free of debt. It has cost him, exclusive of interest on his original investment and on his yearly premiums, as follows:

Cash payment	$2,000.00
Ten payments of $1,000 each	10,000.00
Insurance premiums	575.30
Total	$12,575.30

In this case, the insurance premiums are a dead loss (except for the protection) for, if he had not taken out the policy, he would have had the house paid for at a cost of $12,000.

Suppose, on the other hand, that at the end of the fourth year the man dies. The insurance policies then in force are paid by the company. The widow discharges the debt to the man who loaned the money, and holds a clear title to the property. The cost works out as follows:

Cash payment	$2,000.00
Four payments of $1,000 each	4,000.00
Four years' premiums on policy	355.64
Total	$6,355.64
Less, discount on instalments due about	1,000.00
Net cost	$5,355.64

The last item is the difference between the amount the widow will receive from the insurance company and the amount she will have to pay to settle the debt. The company will pay her $6,000. She owes the lender of the money $6,000, but $1,000 is payable in one year, $2,000 in two years, etc. By discounting these debts in cash, she can pay them all with a little less than $5,000, leaving her with $1,000 or so of ready funds. If she wanted to invest her $6,000 and pay the debts as they come due each year, the result would be similar. At 4 per cent., in the bank, her money would yield her at compound interest about $950, in the next six years, and she would have that amount left after paying the last instalment.

This case may be analyzed in a great number of ways. The cardinal fact about it is that a business venture of this sort may be secured against the accident of death at a cost that, normally, need not run over 1 per cent. per annum on the investment.

The application of this principle is widespread. Every young man who borrows money to put himself through college should insure the lender against death. Thousands of young men borrow from relatives at nominal rates of interest. They figure that they will repay the loan within ten years; and they generally do so unless death intervenes. A young man of twenty can get ten-year insurance in lots of $500 at a cost of about $4.85 per annum for each lot of that amount. In other words, it would cost him $48.50 to make sure that the relative who loaned him the $500 will get it back in case he should die within that period. If he should not die, he will probably be in a position to repay the loan in person.

I have in mind a young man, one of a large family without any too much revenue, who was put through college by his father. For the first two years of his course it was a constant burden on his mind that in case he should die before he came to an age and a condition that would permit him to help his youngest brother get an education, that youngest brother would almost certainly go through life without it; for he knew that the capital of the father was impaired to provide him with an education. At the end of the second year, he heard of term insurance. At that time he took out a policy to cover all that had been spent. In the three years that followed before he began to earn money of his own, he took out other small policies to cover the year's expense. The premiums, he reckoned, were not large

enough to be a burden; and that small expense practically insured a college education for the young brother no matter what happened.

These are illustrations of the use of term insurance in domestic relations. In the larger field of business endeavor, the uses are multifold. Men going into a limited partnership for a business venture to cover a year, or five years, frequently insure their lives for the benefit of their partners. A note of hand, a simple promise to pay a certain sum at a certain time, should in a great number of instances be secured by insurance. The cost is slight as compared with the advantage gained by the beneficiary and by the estate of the signer in case of death. Very often the difference between certainty and uncertainty of the outcome in case of death will turn the balance in some business arrangement.

These are proper uses of term insurance. Another use to which a man may properly put this form of insurance is to make it a temporary substitute for ordinary insurance. A man's position may make it right and proper that he carry, say, $10,000 of ordinary life insurance, for the benefit of his wife. It would cost him, let us say, $300 a year to get that insurance. He feels that he cannot afford it just now. He might cut it down to $5,000, at a cost of $150 a year; but it is surely preferable to take it out in the form of term insurance changeable into ordinary insurance.

Suppose he is twenty-eight years old. He may take a ten-year term policy at a cost of $105 per year. If, any time within the first five years, he should find himself able to carry the $10,000 in ordinary non-term insurance he may make the change, in the same company, without any further medical examination. His premiums on the new policy will be no lower than they would be if he came as a new candidate for a policy. All that he has gained is the protection for the term of years, at a low cost; a certain surrender or paid-up value to the policy; and, possibly, the ability to get a policy which his health would not, at the time of change, justify.

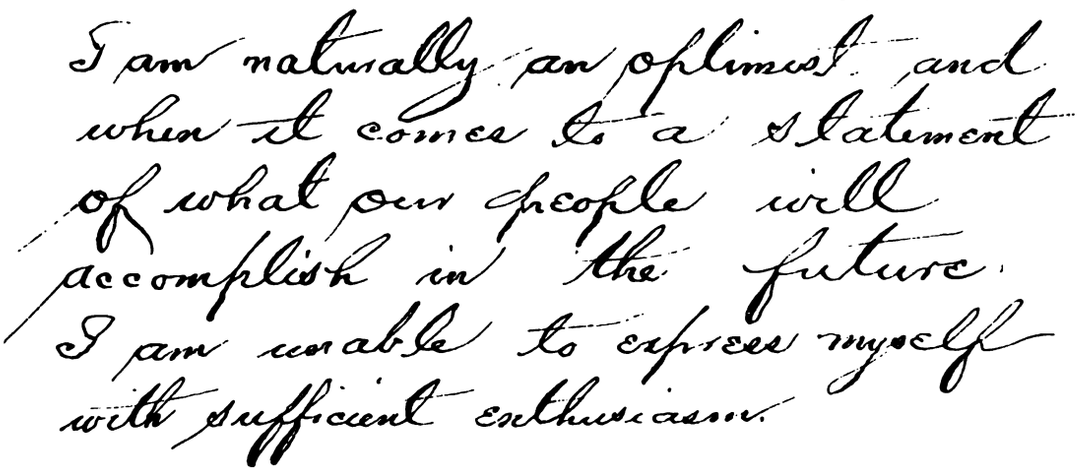
If a man feels that he ought to have a certain amount of insurance, but cannot afford to pay for it, it is proper to take it out in term insurance. It is not, however, proper to continue it in that form. From a study of statistics and calculations, I do not believe that term insurance is a proper form of insurance for permanent use. Tens of thousands of people every year take it out. Many of them know no better, and imagine that they are getting their insurance very cheap. They are—if they happen to die young. They are paying, or going to pay, a very high price if they live to a normal old age. What is worse, when they come to renew their ten-year term policies at the age of fifty-five or over, they will pay premiums that constantly increase as the earning capacity constantly decreases.

The average man, after he reaches the age of fifty-five, earns less revenue than he earns between thirty and fifty-five. But the same ten-year term policy that costs a man of thirty only $10.74 a year, will cost the man of fifty-five nearly $33 per annum. Moreover, he will have to pay it until he dies. If he retires at sixty, the burden of his insurance will weigh upon his mind like a nightmare. Imagine a man of seventy, retired on an income barely sufficient to give him and his people comfort, nearing the end of a ten-year term policy, and facing the renewal of it at the rates that a man of seventy must pay! It is not a pleasant picture to contemplate. Yet it is surely the very thing toward which men drift if they take the term insurance as a permanent form of insurance for old age.

Every man who holds a policy in an insurance company should find out what it is. If it is a term policy he should study out what it means. If his circumstances are such that he can afford to let it drop when he retires from business, when his last daughter marries, or when he sells the farm and settles down to a lazy drift toward old age, then, perhaps, it suits him well, and he can carry it intending to drop it in the long run. If, however, it *must* be kept up at any price, no matter how long he may live — it is one of his first duties to himself and to his heirs to get some other form of policy.

Let him write first of all to the nearest agent of the company in which he has the policy. It is well to be frank, to explain just why a change is desired. The agent will send or bring policies to fit the needs of the buyer. He will also tell what possible advantage may be gained by the change, what is the exact money-value of the policy, perhaps a waiver of medical examination, perhaps some other very slight advantage. At any rate, if there is the slightest advantage in sight, such a man ought to take it.

A SENTENCE IN MR. ROCKEFELLER'S HANDWRITING. See page 10766



SOME RANDOM REMINISCENCES OF MEN AND EVENTS*

BY

JOHN D. ROCKEFELLER

First Article

PROBABLY in the life of every one there comes a time when he is inclined to go over again the events, great and small, which have made up the incidents of his work and pleasure.

On a rainy morning like this, when golf is out of the question, I am tempted to become a garrulous old man, and tell some stories of men and things which have happened in an active life. In some measure I have been associated with the most interesting people our country has produced, especially in business, men who have helped largely tc build up the commerce of the United States and who have made known its products all over the world. These incidents which come to my mind to speak of seemed vitally important to me when they happened, and they still stand out distinctly in my memory.

Just how far anyone is justified in keeping what he regards as his own private affairs from the public, or in defending himself from attacks, is a mooted point. If one talks about one's experiences, there is a natural temptation to charge one with traveling the easy road to egotism; if one keeps silence, the inference of wrong-doing is sometimes even more difficult to meet, as it would then be said that there is no valid defense to be offered.

It has not been my custom to press my affairs forward into public gaze; but I have come to see that if my family and friends want some record of things which might shed light on matters that have been somewhat discussed, it is right that I should yield to their advice, and in this informal way go over again some of the events which have made life interesting to me.

There is still another reason for speaking now. If a tenth of the things that have been said are true, then these dozens of able and faithful men who have been associated with me, many of whom have passed away, must have been guilty of grave faults. For myself, I had decided to say nothing, hoping that after my death the truth would gradually come to the surface and posterity would do strict justice; but while I live and can testify to certain things, it seems fair that I should refer to some points which I hope will help to set forth several much discussed happenings in a new light. I am convinced that they have not been fully understood. All these things affect the memories of men who

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can be made comparatively safe. Combination is necessary and its abuses can be minimized, otherwise our legislators must acknowledge their incapacity to deal with the most important instrument of industry. Hitherto most legislative attempts have been an effort not to control but to destroy, hence their futility.

12. Q. What legislation, if any, would you suggest regarding Industrial Combinations?

A. First. Federal Legislation under which corporations may be created and regulated, if that be possible. Second. In lieu thereof, State Legislation as nearly uniform as possible encouraging combinations of persons and capital for the purpose of carrying on industries, but permitting State supervision, not of a character to hamper industries but sufficient to prevent frauds upon the public.

John D Rockefeller

STATE of NEW YORK, }
COUNTY of NEW YORK, } ss.:

I swear that these statements made by me of my own knowledge are true, and that all other statements I believe to be true.

John D Rockefeller

Sworn and subscribed to before me this 30th day of December 1899.

Marshall Busselle

Notary Public No 190.

FAC-SIMILE OF LAST PAGE OF MR. ROCKEFELLER'S TESTIMONY BEFORE THE INDUSTRIAL COMMISSION OF 1899

THE LUNCHROOM ON THE TOP FLOOR OF THE STANDARD OIL COMPANY'S BUILDING
At 26 Broadway, New York

LOOKING SOUTH FROM THE WINDOWS OF THE LUNCHROOM
Across Bowling Green and the Battery and down the Narrows

EMPLOYEES LEAVING THE CHECK OFFICE OF THE STANDARD OIL WORKS

This gives a faint idea of the number of persons employed at one of the stations of the Company—near Linden, N. J.

are dead and the lives of men who are living, and it is only reasonable that the public should have some first hand facts to draw from in making up its final estimate.

THE STANDARD OIL COMPANY

It would be surprising if in an organization which included a great number of men there should not be an occasional employee here and there who acted, in connection with the business or perhaps in conducting his own affairs, in a way which might be criticized. Even in a comparatively small organization it is well-nigh impossible to restrain this occasional man who is over-zealous for his own or his company's advancement. To judge the character of all the members of a great organization or the organization itself by the actions of a few individuals would be manifestly unfair.

It has been said that I forced the men who became my partners in the oil business to join with me. I would not have been so short-sighted. If it were true that I followed such tactics, I ask, would it have been possible to make of such men life-long companions? Would they accept, and remain for many years in positions of the greatest trust, and finally, could any one have formed of such men, if they had been so browbeaten, a group which has for all these years worked in loyal harmony, with fair dealing among themselves as well as with others, building up efficiency and acting in entire unity? This powerful organization has not only lasted but its efficiency has increased. For fourteen years I have been out of business, and in eight or ten years have only once gone to the company's office.

My last call was in the summer of 1907. I visited again the room at the top of the building, where the officers of the company and the heads of departments have had their luncheon served for many years. I was surprised to find so many men who had come to the front since my last visit years ago. Afterward I had an opportunity to talk with old associates and many new ones, and it was a source of great gratification to me to find that the same spirit of coöperation and harmony existed unchanged. This practice of lunching together, a hundred or more at long tables in most intimate and friendly association, is another indication of what I contend, slight as it may seem to be at first thought. Would these people seek each other's companionship day after day if they had been forced into this relation? People in such a position do

A PANORAMIC VIEW OF THE NEW WORKS NEAR LINDEN, N. J., BUILT BY THE

not go on for long in a pleasant and congenial intimacy.

For years the Standard Oil Company has developed step by step and I am convinced that it has done well its work of supplying to the people the products from petroleum at prices which have decreased as the efficiency of the business has been built up. It gradually extended its services first to the large centres, and then to towns, and now to the smallest places, going to the homes of its customers, delivering the oil to suit the convenience of the actual users. This same system is being followed out in various parts of the world. The company has, for example, three thousand tank wagons supplying American oil to towns and even small hamlets in Europe. Its own depots and employees deliver it in a somewhat similar way in Japan, China, India, and the chief countries of the world. Do you think this trade has been developed by anything but hard work?

This plan of selling our products direct to the consumer and the exceptionally rapid growth of the business bred a certain antagonism which I suppose could not have been avoided, but this same idea of dealing with the consumer directly has been followed by others, and in many lines of trade, without creating, so far as I recall, any serious opposition.

This is a very interesting and important point, and I have often wondered if the criticism which centred upon us did not come from the fact that we were among the first, if not the first, to work out the problems of direct selling to the user on a broad scale. This was done in a fair spirit and with due consideration for every one's rights. We did not ruthlessly

ANOTHER VIEW OF THE NEW STANDARD OIL WORKS

The stills from the roof of the boiler-shop

go after the trade of our competitors and attempt to ruin it by cutting prices or instituting a spy system. We had set ourselves the task of building up as rapidly and as broadly as possible the volume of consumption. Let me try to explain just what happened.

To get the advantage of the facilities we had in manufacture, we sought the utmost market in all lands — we needed volume. To do this we had to create selling methods far in advance of what then existed; we had to dispose of two, or three, or four gallons of oil where one had been sold before, and we could not rely upon the usual trade channels then existing to accomplish this. It was never our purpose to interfere with a dealer who adequately cultivated his field of operations, but when we saw a new opportunity or a new place for extending the sale by further and effective facilities, we made it our business to provide them. In this

STANDARD OIL COMPANY DURING THE BUSINESS DEPRESSION OF LAST WINTER

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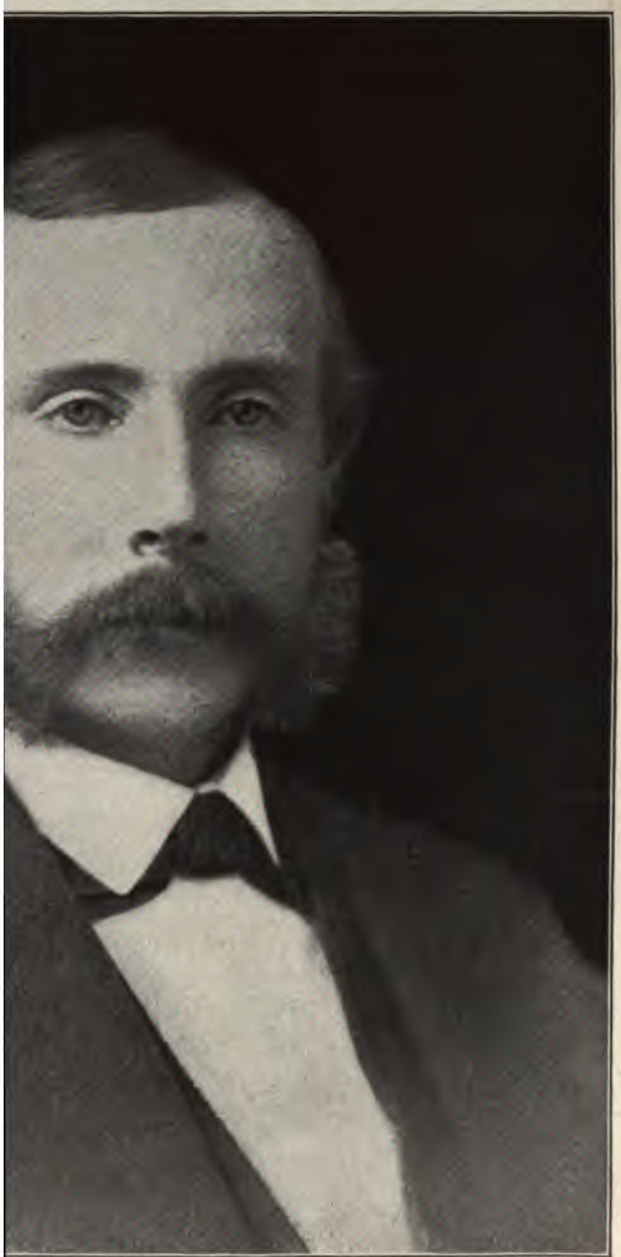
permit this in all cases.

which employees were over-zealous in going after
pment sales it would not be surprising to learn, but
y new they were acting in violation of the expressed
ial for and known wishes of the company. But even



From a photograph by J. F. Ryder, Cleveland, O.

D. ROCKEFELLER IN 1864

ne men these instances, I am convinced, occurred so
pany's seldom, by comparison with the number of
pid to transactions we carried on, that they were
these really the exceptions that proved the rule.

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To give a true picture of
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Rev. Thomas W. Armitage
pastor of a great New Y
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who would risk all on th

Every week in the year for many, many years, this concern has brought into this country more than a million dollars gold, all from the products produced by American labor. I am proud of the record, and believe most Americans will be when they understand some things better. These achievements, the development of this great foreign trade, the owning of ships to carry the oil in bulk by the most economical methods, the sending out of men to fight for the world's markets, have cost huge sums of money, and the vast capital employed could not be raised nor controlled except by such an organization as the Standard is to-day..

To give a true picture of the early conditions, one must realize that the oil industry was considered a most hazardous undertaking, not altogether unlike the speculative mining undertakings we hear so much of to-day. I well remember my old and distinguished friend, Rev. Thomas W. Armitage, for some forty years pastor of a great New York church, warning me that it was worse than folly to extend our plants and our operations. He was sure we were running unwarranted risks, that our oil supply would probably fail, the demand would decline, and he, with many others, sometimes I thought almost everybody, prophesied ruin.

None of us ever dreamed of the magnitude of what proved to be the later expansion. We did our day's work as we met it, looking forward to what we could see in the distance and keeping well up to our opportunities, but laying our foundations firmly. As I have said, capital was most difficult to secure and it was not easy to interest conservative men in this adventurous business. Men of property were afraid of it, though in rare cases capitalists were induced to unite with us to a limited extent. If they bought our stock at all, they took a little of it now and then as an experiment, and we were painfully conscious that they often declined to buy new stock with many beautiful expressions of appreciation.

The enterprise being so new and novel, on account of the fearfulness of certain holders in reference to its success, we frequently had to take stock to keep it from going begging, but we had such confidence in the fundamental value of the concern that we were willing to assume this risk. There are always a few men in an undertaking of this kind who would risk all on their judgment of the final result, and if the enterprise had failed, these would have been classed as visionary adventurers, and perhaps with good reason.

The 60,000 men who are at work constantly in the service of the company are kept busy year in and year out. The past year has been a time of great contraction, but the Standard has gone on with its plans unchecked, and the new works and buildings have not been delayed on account of lack of capital or fear of bad times. It pays its workmen well, it cares for them when sick, and pensions them when old. It has never had any important strikes, and if there is any better function of business management than giving profitable work to employees year after year, in good times and bad, I don't know what it is.

Another thing to be remembered about this so-called "octopus" is that there has been no "water" introduced into its capital (perhaps we felt that oil and water would not have mixed); nor in all these years has any one had to wait for money which the Standard owed. It has suffered from great fires and losses, but it has taken care of its affairs in such a way that it has not found it necessary to appeal to the general public to place blocks of bonds or stock; it has used no underwriting syndicates or stock selling-schemes in any form, and it has always managed to finance new oil field operations when called upon.

It is a common thing to hear people say that this company has crushed out its competitors. Only the uninformed could make such an assertion. It has and always has had, and always will have, hundreds of active competitors; it has lived only because it has managed its affairs well and economically and with great vigor. To speak of competition for a minute: Consider not only the able people who compete in refining oil, but all the competition in the various trades which make and sell by-products — a great variety of different businesses. And perhaps of even more importance is the competition in foreign lands. The Standard is always fighting to sell the American product against the oil produced from the great fields of Russia, which struggles for the trade of Europe, and the Burma oil, which largely affects the market in India. In all these various countries we are met with tariffs which are raised against us, local prejudices, and strange customs. In many countries we had to teach the people — the Chinese, for example — to burn oil by making

lamps for them; we packed the oil to be carried by camels or on the backs of runners in the most remote portions of the world; we adapted the trade to the needs of strange folk. Every time we succeeded in a foreign land, it meant dollars brought to this country, and every time we failed, it was a loss to our nation and its workmen.

One of our greatest helpers has been the State Department in Washington. Our ambassadors and ministers and consuls have aided to push our way into new markets to the utmost corners of the world.

I think I can speak thus frankly and enthusiastically because the working out of many of these great plans has developed largely since I retired from the business fourteen years ago. The Standard has not now, and never did have, a royal road to supremacy, nor is its success due to any one man but to the multitude of able men who are working together. If the present managers of the company were to relax efforts, allow the quality of their product to degenerate, or treat their customers badly, how long would their business last? About as long as any other neglected business. To read some of the accounts of the affairs of the company, one would think that it had such a hold on the oil trade that the directors did little but come together and declare dividends. It is a pleasure for me to take this opportunity to pay tribute to the work these men are doing, not only for the company they serve, but for the foreign trade of our country; for more than half of all the product that the company makes is sold outside of the United States. If, in place of these directors, the business were taken over and run by anyone but experts, I would sell my interest for any price I could get. To succeed in a business requires the best and most earnest men to manage it, and the best men rise to the top. Of its origin and early plans I will speak later.

THE MODERN CORPORATION

Beyond question there is a suspicion of corporations. There may be reason for such suspicion very often; for a corporation may be moral or immoral, just as a man may be moral or the reverse; but it is folly to condemn all corporations because some are bad, or even to be unduly suspicious of all, because some are bad. But the corporation in form and character has come to stay — that is a thing that may be depended upon. Even small firms are becoming corporations, because it is a convenient form of partnership.

It is equally true that combinations of capital are bound to continue and to grow, and this need not alarm even the most timid if the corporation, or the series of corporations, is properly conducted with due regard for the rights of others. The day of individual competition in large affairs is past and gone — you might just as well argue that we should go back to hand labor and throw away our efficient machines — and the sober good sense of the people will accept this fact when they have studied and tried it out. Just see how the list of stockholders in the great corporations is increasing by leaps and bounds. This means that all these people are becoming partners in great businesses. It is a good thing — it will bring a feeling of increased responsibility to the managers of the corporations and will make the people who have their interests involved study the facts impartially before condemning or attacking them.

On this subject of industrial combinations I have often expressed my opinions; and, as I have not changed my mind, I am not averse to repeating them now, especially as the subject seems again to be so much in the public eye.

The chief advantages from industrial combinations are those which can be derived from a coöperation of persons and aggregation of capital. Much that one man cannot do alone two can do together, and once admit the fact that coöperation, or, what is the same thing, combination, is necessary on a small scale, the limit depends solely upon the necessities of business. Two persons in partnership may be a sufficiently large combination for a small business, but if the business grows or can be made to grow, more persons and more capital must be taken in. The business may grow so large that a partnership ceases to be a proper instrumentality for its purposes, and then a corporation becomes a necessity. In most countries, as in England, this form of industrial combination is sufficient for a business co-extensive with the parent country, but it is not so in America. Our federal form of government, making every corporation created by a state foreign to every other state, renders it necessary for persons doing business through corporate agency to organize corporations in some or many of the different states in which their business is located.

Instead of doing business through the agency of one corporation they must do business through the agencies of several corporations. If the business is extended to foreign countries, and Americans are not to-day satisfied with home markets alone, it will be found helpful and possibly necessary to organize corporations in such countries, for Europeans are prejudiced against foreign corporations as are the people of many of our states. These different corporations thus become coöperating agencies in the same business and are held together by common ownership of their stocks.

It is too late to argue about advantages of industrial combinations. They are a necessity. And if Americans are to have the privilege of extending their business in all the states of the Union, and into foreign countries as well, they are a necessity on a large scale, and require the agency of more than one corporation.

The dangers are that the power conferred by combination may be abused, that combinations may be formed for speculation in stocks rather than for conducting business, and that for this purpose prices may be temporarily raised instead of being lowered. These abuses are possible tc a greater or less extent in all combinations, large or small, but this fact is no more of an argument against combinations than the fact that steam may explode is an argument against steam. Steam is necessary and can be made comparatively safe. Combination is necessary and its abuses can be minimized; otherwise our legislators must acknowledge their incapacity to deal with the most important instrument of industry.

In the hearing of the Industrial Commission in 1899, I then said that if I were to suggest any legislation regarding industrial combinations it would be: First, Federal legislation under which corporations may be created and regulated, if that be possible. Second, in lieu thereof, state legislation as nearly uniform as possible, encouraging combinations of persons and capital for the purpose of carrying on industries, but permitting state supervision, not of a character to hamper industries, but sufficient to prevent frauds upon the public. I still feel as I did in 1899.

THE NEW OPPORTUNITIES

I am far from believing that this will adversely affect the individual. The great economic era we are entering will give splendid opportunity to the young man of the future. One often hears the men of this new generation say that they do not have the chances that their fathers and grandfathers had. How little they know of the disadvantages from which we suffered! In my young manhood we had everything to do and nothing to do it with; we had to hew our own paths along new lines; we had little experience to go on. Capital was most difficult to get, credits were mysterious things. Whereas now we have a system of commercial ratings, everything was then haphazard and we suffered from a stupendous war and all the disasters which followed.

Compare this day with that. Our comforts and opportunities are multiplied a thousandfold. The resources of our great land are now actually opening up and are scarcely touched; our home markets are vast, and we have just begun to think of the foreign peoples we can serve — the people who are years behind us in civilization. In the East a quarter of the human race is just awakening. The men of this generation are entering into a heritage which makes their fathers' lives look poverty-stricken by comparison. I am naturally an optimist, and when it comes to a statement of what our people will accomplish in the future, I am unable to express myself with sufficient enthusiasm.

There are many things we must do to attain the highest benefit from all these great blessings; and not the least of these is to build up our reputation throughout the whole world.

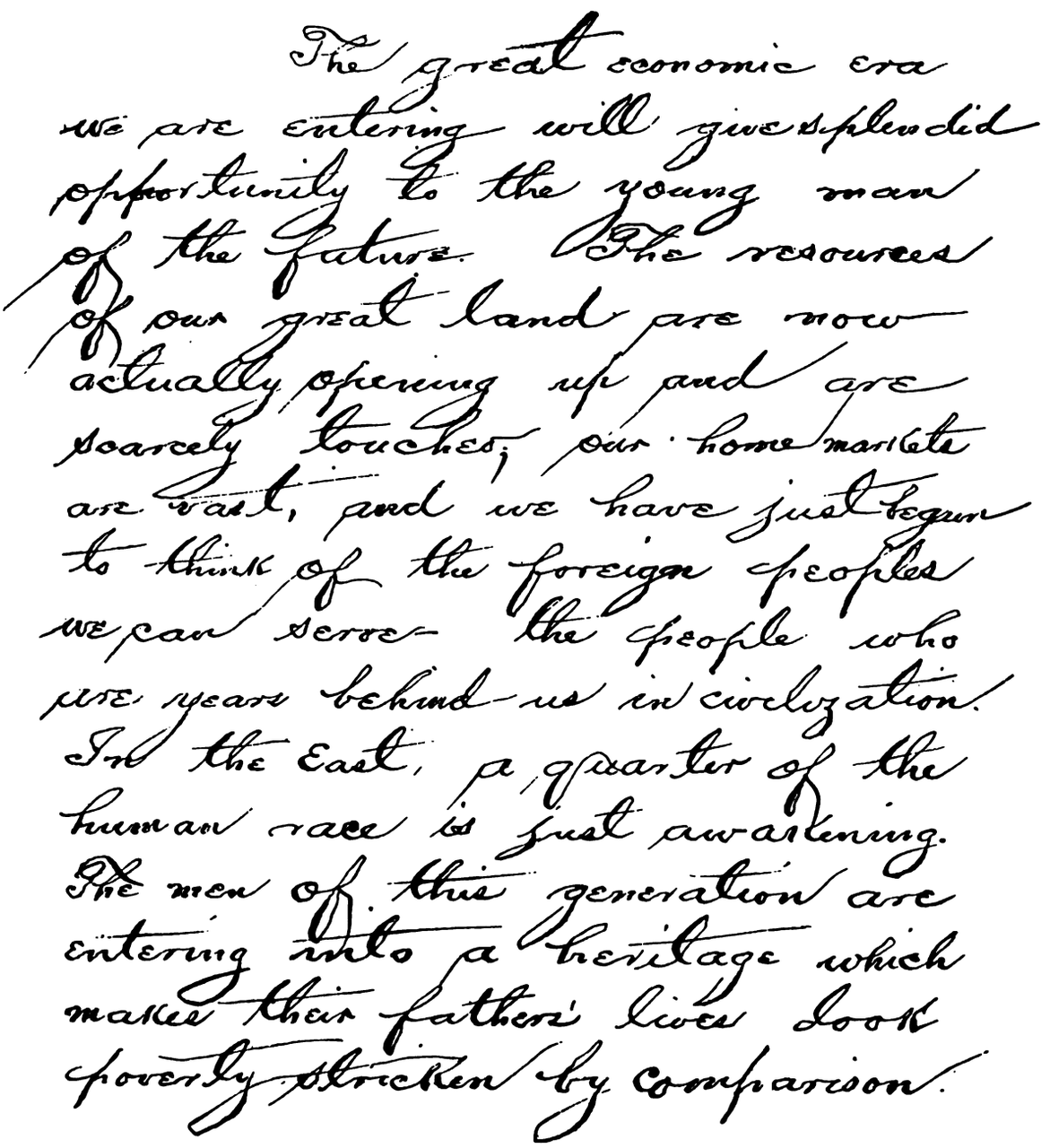
The great business interests will, I hope, so comport themselves that foreign capital will consider it a desirable thing to hold shares in American companies. It is for Americans to see that foreign investors are well and honestly treated, so that they will never regret purchases of our securities.

I may speak thus frankly, because I am an investor in many American enterprises, but a controller of none (with one exception and that a company which has not been much of a dividend payer), and I, like all the rest, am dependent upon the honest and capable administration of the industries. I firmly and sincerely believe that they will be so managed.

THE AMERICAN BUSINESS MAN

You hear a good many people of pessimistic disposition say much about greed in American life. One would think to hear them talk that we were a race of misers in this country.

To lay too much stress upon the reports of greed in the newspapers would be folly, since their function is to report the unusual and even the abnormal. When a man goes



The great economic era we are entering will give splendid opportunity to the young man of the future. The resources of our great land are now actually opening up and are scarcely touched; our home markets are vast, and we have just begun to think of the foreign peoples we can serve — the people who are years behind us in civilization. In the East, a quarter of the human race is just awakening. The men of this generation are entering into a heritage which makes their fathers' lives look poverty stricken by comparison.

FAC-SIMILE OF A PORTION OF THIS ARTICLE IN MR. ROCKEFELLER'S HANDWRITING

prominence occasionally, you surely would not say that these occasions represented his normal life. It is by no means for money alone that these active-minded men labor — they are

properly about his daily affairs, the public prints say nothing; it is only when something extraordinary happens to him that he is discussed. But because he is thus brought into

engaged in a fascinating occupation. The zest of the work is maintained by something better than the mere accumulation of money, and, as I think I have said elsewhere, the

standards of business are high and are getting better all the time.

I confess I have no sympathy with the idea so often advanced that our basis of all judgments in this country is founded on money. If this were true, we should be a nation of money hoarders instead of spenders. Nor do I admit that we are so small-minded a people as to be jealous of the success of others. It is the other way about: we are most extraordinarily ambitious, and the success of one man in any walk of life spurs the others on. It does not sour them, and it is a libel even to suggest so great a meanness of spirit.

In reading the newspapers, where so much is taken for granted in considering things on a money standard, I think we need some of the sense of humor possessed by an Irish neighbor of mine, who built what we regarded as an extremely ugly house, which stood out in bright colors as we looked from our windows. My taste in architecture differed so widely from that affected by my Irish friend, that we planted out the view of his house by moving some large trees to the end of our property. Another neighbor who watched this work going on asked Mr. Foley why Mr. Rockefeller moved all these big trees and cut off the view between the houses. Foley, with the quick wit of his country, responded instantly: "It 's invy, they can't stand looking at the ividence of me prosperity."

In my early days men acted just as they do now, no doubt. When there was anything to be done for general trade betterment, almost every man had some good reason for believing that his case was a special one different from all the rest. For every foolish thing he did, or wanted to do, for every unbusiness-like plan he had, he always pleaded that it was necessary in his case. He was the one man who had to sell at less than cost, to disrupt all the business plans of others in his trade, because his individual position was so absolutely different from all the rest. It was often a heart-breaking undertaking to convince those men that the perfect occasion which would lead to the perfect opportunity would never come, even if they waited until the crack o' doom.

Then, again, we had the type of man who really never knew all the facts about his own affairs. Many of the brightest kept their books in such a way that they did not actually know when they were making money on a certain operation and when they were losing. This unintelligent competition was a hard matter to contend with. Good old-fashioned common sense has always been a mighty rare commodity. When a man's affairs are not going well, he hates to study the books and face the truth. From the first, the men who managed the Standard Oil Company kept their books intelligently as well as correctly. We knew how much we made and where we gained or lost. At least, we tried not to deceive ourselves.

My ideas of business are no doubt old-fashioned, but the fundamental principles do not change from generation to generation, and sometimes I think that our quick-witted American business men, whose spirit and energy are so splendid, do not always sufficiently study the real underlying foundations of business management. I have spoken of the necessity of being frank and honest with oneself about one's own affairs: many people assume that they can get away from the truth by avoiding thinking about it, but the natural law is inevitable, and the sooner it is recognised, the better.

One hears a great deal about wages and why they must be maintained at a high level, by the railroads, for example. A laborer is worthy of his hire, no less, but no more, and in the long run he must contribute an equivalent for what he is paid. If he does not do this, he is probably pauperized, and you at once throw out the balance of things. You can't hold up conditions artificially, and you can't change the underlying laws of trade. If you try, you must inevitably fail. All this may be trite and obvious, but it is remarkable how many men overlook what should be the obvious. These are facts we can't get away from — a business man must adapt himself to the natural conditions as they exist from month to month and year to year. Sometimes I feel that we Americans think we can find a short road to success, and it may appear that often this fact is accomplished; but real efficiency in work comes from knowing your facts and building upon that sure foundation.

Many men of wealth do not retire from business even when they can. They are not willing to be idle, or they have a just pride in their work and want to perfect the plans in which they have faith, or, what is of still more consequence, they may feel the call to expand and build up for the benefit of their

employees and associates and these men are the great builders up in our country. Consider for a moment how much would have been left undone if our prosperous American business men had sat down with folded hands when they had acquired a competency. I have respect for all these reasons, but if a man has succeeded, he has brought upon himself corresponding responsibilities, and our institutions devoted to helping men to help themselves need the brain of the American business man as well as part of his money.

Some of these men, however, are so absorbed in their business affairs that they hardly have time to think of anything else. If they do interest themselves in a work outside of their own office and undertake to raise money, they begin with an apology, as if they are ashamed of themselves.

"I am no beggar," I have heard many of them say, to which I could only reply: "I am sorry you feel that way about it."

I have been this sort of beggar all my life and the experiences I have had were so interesting and important to me that I will venture to speak of them in a later chapter.

A TRIP THROUGH AFRICA

THE BEST ROUTE FOR A SIX-MONTHS' JOURNEY TO HUNT, TO EXPLORE, TO GET ADVENTURE—THE GAME—THE FLORA—SOME FASCINATING UNSOLVED PROBLEMS—EXCITING EXPERIENCES

BY

S. P. VERNER

(MR. VERNER HAS SPENT MUCH OF THE LAST FIFTEEN YEARS IN AFRICA AND WRITES FROM A LARGE EXPERIENCE)

A TRIP to Africa is now an experience that many adventurous people will undertake; and some such may find the following outline of a journey useful; for the number who already go for adventure and sport will be increased by President Roosevelt's example. The map that I have drawn to accompany this article tells its own tale. It sketches the itinerary of the man who would conquer the one unconquered problem of African exploration — the actual discovery of the source of the Nile.

Of course, I hear someone rise to claim that the final spring of the Nile has been visited by a white man already. But I challenge proof. The stream which is the most remote from where Father Nile pours his flood into the Mediterranean has indeed been located; but neither Englishman nor German nor Belgian has yet quenched his thirst at the very last spring in the Lunar Mountains, whence runs the rill toward the far-off sea.

That is emphatically the last great achievement in African exploration. The continent has been opened up in all the four points of the compass. Men have crossed it north and south, east and west, and in all four diagonals, and even the crossing in an automobile will have been done before this is published. The pygmies have twice visited Europe and America; Mounts Kilimanjaro, Kenia, and Ruwenzori have been scaled; the Great Forest has been penetrated from end to end; the last great lake has been found; the last great river has been navigated: the okapi has been killed and taken home. The elephant has been harnessed, but no one has yet tamed the gorilla. Only it remains to solve the mystery of the Nile.

THE LAST MYSTERY OF AFRICA

There are in all four main ways to get to this spring of the Nile without sacrificing some good sport on the way. I have a favorite among them, but I shall name them all.

There is the Cairo-Cape route. This is magnificent, but too long, too often traveled, too exclusively British Africa; and it involves the slow and arduous journey through the upper Nile by steamer.

Then there is the reverse of this — the route from the Cape to Cairo, entering at the south. The same objections are still good, except that one may go down the Nile faster than up.

Still the shooting is not so good as on the route I shall recommend; and the gorilla is left far to the west.

The way by Matadi at the Congo's mouth and across is too fearfully slow, owing to the month-long ascent of the Congo.

One might go up the Nile and turn off toward the East Coast, but that too misses the gorilla. The same objection obtains to going in at the Cape and turning off eastward at the great Lakes. On the other hand, if one enters either at the Cape or at Alexandria and goes to the Lakes and turns westward, he gets the gorilla, but misses the magnificent game of East Africa.

Everything considered, the best route is to go through Suez and to Mombasa, thence to the Lakes, making cross-trips at certain points, thence down the Aruwimi watershed on the southern side to Stanley Falls and then down the Congo to the Atlantic.

The advantages in this route are these:

First: With the least waste of time, it gives the traveler most to do and see. By going in along the Mombasa Railway and crossing Victoria Nyanza, one can use steam for that part of the journey. If it be desired to continue straight across, there will then be only seven hundred miles afoot, or for horse or mule, before reaching steam again. If a detour is made to the sources of the Nile, another three hundred miles afoot will be required. Any other way of crossing Africa will take twice as much time for the overland trip. The route I recommend will take about four months, allowing one for stops and hunting excursions, one for the detour to the Nile sources and Tanganyika, and the other two as the absolute minimum of passage time from coast to coast. This time of straight passage is another record which may be established. In the present condition of transport facilities, the time is about as follows, for an undeviating trip across:

From Mombasa to the Western shore of Victoria Nyanza, three days; from Victoria Nyanza to Albert Nyanza, twelve days; from Albert Nyanza to Stanley Falls, twenty-eight days; from Stanley Falls to the mouth of the Congo, ten days; total fifty-three days. This is a bare possibility. The record is far above two months — and then one is not sure.

The other two months I suggest for side trips, and for that trip to the point where the last rain-drop of the south starts on its northern run along the Nile. These side trips may be done in the following way: Shooting about Kilimanjaro, seven days; the trip from Victoria to Tanganyika by way of the Nile source, eleven days; traversing Tanganyika and visiting Livingstone's grave below the end of that lake and return, twenty-eight days; resting and receiving officials, fourteen days.

This is an ideal and minimum schedule. Practically it would be a great feat if accomplished in six months' time, and the writer would recommend that much time for the trip.

Second: It is the best way to see African colonization and government while also embracing other desiderata in the plan.

This trip would bring under review British and German East Africa, Northern Rhodesia, French Congo, Belgian Congo, and Portuguese West Africa. No other trip could be devised which would embrace so comprehensive a survey of various European colonies in the short time and with the other interesting features included.

Third: It gives the finest big-game shooting in the world. The animals will be enumerated when I take up the sections of the march, but here I state that no other trip anywhere on earth could find such a diversity of all sorts of game in the time given.

Fourth: It affords unrivaled opportunities for botanical research. The flora will vary from those of the alluvial coast at Mombasa and Banana to those of the snow-clad heights of Ruwenzori.

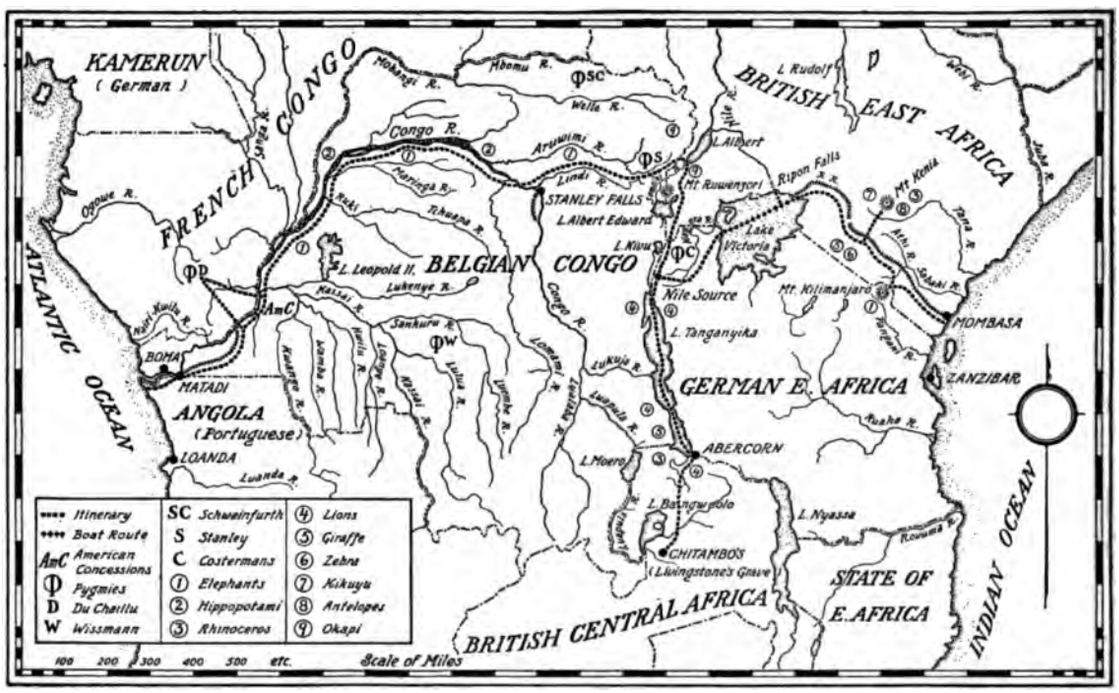
Fifth: It embraces beauty of scenery of the most glorious and unrivaled character.

Sixth: It carries an insight into the commercial methods and the industrial possibilities of the country, into the rubber and ivory trade, into the riches of the great equatorial forest, and of the vast upland savannahs.

The straits of Bab-El-Mandeb will be passed, and the ship will go down to far-famed and long-infamous Zanzibar. Here it was that Stanley started on two of his great expeditions and came out from his third. Here Emin Pasha fell out of a window when too full of champagne at Major Wissmann's banquet, and nearly broke his neck. Here the slave trade reigned for a thousand years, and gave up the ghost to the tune of a British bombardment. Zanzibar is an island, with British Mombasa and German Bar-es-Salaam on the opposite coast. The British Railway begins at Mombasa.

The physical features along the British

Railway embrace about a hundred and fifty miles of the eastern coastal plain, a similar extent of the escarpment of the eastern Ranges, about a hundred miles across the great rift valley, one hundred and seventy-five across Victoria Nyanza, at an altitude of over three thousand feet, and a mean temperature of 71 degrees Fahr., with an annual rainfall of 47 inches, a broken and rugged stretch of two hundred miles across the very backbone of the continent, from Victoria to Lake Albert, then a rough climb of about seventy miles to the headwaters of the Aruwimi on the Congo



A TRIP THROUGH AFRICA

A map showing the route that will yield the best adventure and the greatest opportunities for scientific study

side of the great mountain system, and some four hundred miles farther along that river to the junction with the Congo. The voyage of a thousand miles down the river takes one to Stanley Pool, where the Chrystal Mountains interpose their barrier, and one must take train through the mountains for two hundred and fifty miles to Mtadi, where the ocean steamers await the passenger, one hundred and twenty miles above the mouth of the river.

These distances are practically straight lines, and allowance must be made for the many turns of trail, river, and rail. The whole distance is about two thousand six hundred miles, but one will have traversed all of three thousand before the journey is over.

The highest point along this route will be Mount Ruwenzori, about twenty-thousand feet above the sea. From the eastern edge of the escarpment to the beginning of the Aruwimi plains is the width of the great mountain system of Central Africa, analogous to the Rockies in America, about seven hundred miles wide. This series of ranges is really a part of an immense world ridge which extends from extreme northeastern Europe to the Cape, including the Ural and Caucasus, the mountains of Asia Minor, the famous Ararat, Lebanon, and Sinai among them, the ranges in Abyssinia, and continuing southward until the prolongation of the western chain is met at the Cape. Similarly, the Chrystal system is a continuation of the great ridge beginning in Sweden and Norway and passing along the Alps and Apennines, reappearing in the Atlas ranges, in the Kong mountains, and so finally reaching the Cape and forming a sort of gigantic "V" on the surface of the earth, the point at Cape Town, the wings extending to the extremes of northern Europe.

The great section from the upper Aruwimi

to Stanley Pool, about fifteen hundred miles, constitutes the vast Central African plateau and plain. Then the Chrystal system of mountains is about three hundred miles wide, while the western coastal plain is not more than one hundred in breadth.

A GREAT FOREST AND ITS LIFE

The great equatorial forest, which extends practically across Africa along the line of the Equator, contains a solid forest which would completely cover all California. This immense primeval woods offers to the naturalist a world of research. There the trees — acacias, mahogany, teak, scores of varieties of palms, mimosas, cotton-wood, bays, ferns of all sorts and sizes up to the tremendous tree-fern, climbers, rubber vines, convolvuli of mighty size choking to death the forest monarchs about which they twine themselves in deadly embrace — rattans, canes, mosses, swampy glades full of lilies and orchids; there are the insects, ants, mosquitoes, Tsetse and other flies, the butterflies in armies, the humming-birds chasing the myriad denizens of the woods — the giant Goliath beetle, the strange insects which so much resemble a stick or a piece of wood that they are often taken for them; the hibernating fish, which lives for months stuck in a coat of mud in the dry bed of a stream; the birds — guinea, toucan, gros-beak, quail, heron, flamingo, crane, ibis — it would require a natural history to name them all. This forest shelters the gorilla and the chimpanzee, highest of beasts in the scale of life, and the pygmies, the lowest of men. Its fauna embraces the largest and the tallest of beasts — the African elephant and the giraffe; the sweetest of song-birds, the nightingale, whose winter home is there; the best of feathered talkers, the red-tailed gray parrot; one of the most venomous of serpents, the two-horned viper; the largest of land-snakes, the python.

There is a curious eccentricity about the fauna along this route, which constitutes one of the zoological problems of the world. The gorilla occurs only in the Western part of this zone, near the Atlantic, and has not yet been reported south of the Congo. The giraffe appears to be wanting west of the Lualaba, if not of the whole Lunar chain. The rhinoceros is essentially an East and South African beast. The zebra is said not to occur west of Lualaba. The ostrich finds its limit outside the Congo basin. There appears to be, or to have been a determining line of demarcation in Central Africa, restricting certain animals to certain regions.

The explanation which best satisfies the writer, in the present state of our knowledge on the subject, is based on the influence of the former inland sea which must at one time have covered the present Congo basin, and continued far into the Soudan, probably even into the present Sahara. This inland water separated East and West Africa, and encouraged the development of a fauna in each part of the continent distinct from that prevailing in the other. After the elevation and dessication of the central basin, there began a commingling of these animals, which is a slow process, and is evidently still in progress. I am not entirely satisfied with this hypothesis, and a visitor may enjoy studying the phenomena and their causes. Why the gorilla should be confined to West Africa and the chimpanzee distributed across the continent is a problem for the most ambitious zoologist. Indeed so paradoxical is this that I wish to be sure of the facts. Still, there are similar cases in all the continents. The fondness of the grizzly for the Rockies, for example, is such a case.

This route is one full of the associations of much that has been dramatic in modern history. It was from Zanzibar that most of the great exploring expeditions set out. Thence went the missionaries who discovered Kilimanjaro. From there went Burton and Speke on their way to find Tanganyika and Victoria Nyanza. Stanley and Cameron started across the continent from Zanzibar, and the body of David Livingstone was carried thither by his faithful black servants after the heroic explorer had died on the banks of Bangweolo. One may career at forty miles an hour over country along which Mackay and Hannington toiled so painfully twenty years ago, and where the latter fell a victim to the cruelty of the savage king of Uganda.

Then there is the route from Victoria Nyanza to Lake Albert, made famous by Stanley's Emin Pasha relief expedition. There is the land where Sir Samuel Baker reached his last and farthest point. There is the long journey down the river which Stanley made through so many weary months now condensed into a week's steaming on commodious steamers. There is the railroad through the passes over which the explorer

painfully dragged his boats, and an ice-factory where he once found the heat so unendurable.

BIG GAME AND A NEEDED REFORM

The desirable side trips on this long journey, are mainly these: one for elephant shooting at the base of Mt. Kilimanjaro off the Mombasa Railway; one for antelopes and other game of the plains about the headwaters of the Athi River in Kikuyu; for lions near Tanganyika, where they have become a pest, especially near the mouth of the Lukuga on the West shore; for the okapi, the valley of the Semliki between lakes Albert and Edward which can be made on the return from Tanganyika; for the chimpanzee, the forests of the Aruwimi and also the banks of the Congo all the way down, and the plains of Manuema. The pygmies will be found, as indicated on the map, in the Ituri valley, on the Aruwimi trip. They will also be found in the same region as the gorilla, in the Congo-Ogowe watershed in French West Africa.

There is one reform needed in Africa — the acceleration of the movement to preserve the game. While much has been done on paper to this end, really the slaughter goes on at a fearful pace, notwithstanding all the regulations, and all the efforts of the local governments. There is really only one effective method — that of preserves rigidly policed, and in which no shooting is allowed at any time. Indeed it would be well to prohibit all firearms in the territory. Such preserves should have natural boundaries wherever possible, preferably rivers, lakes, or a railroad so that the policing may be the more readily effected, and the undesirables kept out. The way in which the once glorious fauna of South Africa has been utterly destroyed is a lesson which ought to be taken to heart.

Time may solve the difficult problem of slavery, which still flourishes along the entire route mapped out. This problem has been the despair of statesmen and philanthropists ever since the opening up of the continent. While the export trade may be said to have practically ceased, the owning of slaves by Africans themselves continues and there are at least a million slaves on the very line of march suggested. How to free them in a way best for them is a task full of difficulties, but a consummation devoutly to be wished.

The cost of this trip may be made whatever any one may wish to spend, but five white men, with a hundred porters for the overland portions, could make the trip comfortably on ten thousand dollars, while fifteen thousand would afford an abundant margin.

A DANGEROUS ADVENTURE WITH ELEPHANTS

The prospective tourist may be interested in an experience that fell to my lot when I was looking for birds and was found by beasts. Once I went from the steamer, which had tied up for the night on the banks of the Kasai in the afternoon, to shoot some guinea-fowls which had flown up when we approached. I took nothing but a shot-gun and some cartridges with a number four shot. I did not expect to go more than a few hundred yards. The birds flew up again out of range, and I followed to the edge of some woods, and entered them.

All of a sudden a trumpeting began on my right, and an answering sound came from the left. I was getting out in the direction whence I had come, when a roar to the rear announced that the beasts had turned my flank. Presently they saw me, and came right on. Elephants rarely attack a man unprovoked, but these fellows near the river had evidently been shot at by men on passing steamers, and one could detect mischief in their mien. They were on three sides of me, and in front lay the trackless forest leading away from the river, while night was near. Between me and the elephants was a swampy morass, full of sedges and tall grass, with water underneath.

I lost no time in making for this refuge, for elephants do not like soft ground. I got well into the morass, with the water up to my waist. The great brutes followed to the very edge, and stood menacingly, trumpeting and angry. I did not like the idea of staying there all night, while I feared that my comrades on the boat would think it too late to try to come to the rescue until they knew I was really in danger. I did not wish to madden the elephants by firing the shot-gun, though I would have done so as a last resort.

A happy thought struck me. It was in the dry season, and the grass was dead at the top, and falling in brown masses on top of the hummocks. My safety-box of matches was out in a trice, I tore some grass clear around me, and set a fire on the lee side. It flamed up in a moment, and I retreated as it went on, fanned by the evening breeze. Soon a tremendous smoke and tongues of flame shot up,

when the whole expanse of the grassy dell caught, and the fire ran over the top of the morass like a living thing. Then the elephants gave a farewell roar of disgust, and quitted the scene, waiting not on the order of their going. I came out muddy, black, and begrimed, but determined not to trust to a shot-gun again.

But I did the very same thing again, notwithstanding. I went along a grassy hillside in search of quail which I heard calling in the late afternoon, and saw some dark forms which I took for ant-nests, on my right. Thinking to stalk the quail behind these, I slipped up slowly in that direction, to find a herd of more than a score of buffaloes feeding.

Now the West African buffalo is the meanest of all the African beasts. They no sooner saw me than they charged. To shoot would have been more than madness, and I made for a small acacia near by, and barked my shins heroically as I climbed for a fork above the reach of horns. The buffaloes regarded this manœuvre with some surprise, as they had not seen monkeys dressed that way before, and began to circle about the tree, stamping the ground and uttering deep, angry, roars. I thought to frighten them away by firing from my perch, and peppered one of them at a distance of forty yards. This infuriated the herd, and they began a sort of war-dance around the tree, circling about it, and pawing the ground furiously. Then I tested one of those glib recommendations in which the books abound, to the effect that by cutting a shot-cartridge between the wads for the powder, one might convert the shot into a solid ball. I did so and aimed at the grandfather of the herd. I hit him squarely in the head, and he staggered, recovered himself and charged that tree with such fury that I had little more chance than an apple in a gale. But I held tight and so, thank heaven, did the roots of the acacia.

I fired at the old villain at close range this time, and peppered one eye — the result being that he retreated to the rest of the herd, and then began circling the tree like mad — one eye blinded, with the rest following him, and even the calves bleating in a chorus of fury. They kept me up that tree until sun-down, and I never before made such time getting down a hill as I did that evening.

THE PACIFIER OF THE PHILIPPINES

THE STRENUOUS AND ADVENTUROUS CAREER OF GENERAL LEONARD WOOD, "A SOLDIER OF THE NEW ARMY," WHO RETURNS TO A DEPARTMENTAL COMMAND IN THE UNITED STATES

BY

ROBERT HAMMOND MURRAY

MOST of the officers who led our forces in the Civil War are dead. They were of the old army. A few survived our war with Spain, but most of them are either dead or are retired. Our present army is a new army, with new leaders, new problems, and new aims.

General Leonard Wood was a surgeon of the old army. He put himself in the way of becoming a soldier in the new army, when he organized the Rough Riders in '98 and took them to Cuba, with Theodore Roosevelt for his lieutenant-colonel. Friendship with those high in office may be profitable but it is also often unfortunate. General Wood was fortunate in that he came in contact with a man who liked him, and was willing and able to raise him to high rank. He was unfortunate in that such a succession of promotions could be made only by jumping him over the heads of officers whose seniority and service gave them cause for jealousy. This made difficult a calm judgment on his merits or ability by his associates in the army. The newspaper discussion of the subject made still more difficult just consideration of his rapid rise as colonel of volunteers, brigadier-general of volunteers, major-general of volunteers, brigadier in the regular establishment and finally major-general.

This is preliminary to an explanation of General Wood's work in the Philippines, where he arrived in July, 1903, and where he worked till his departure last February to assume command of the Department of the East with headquarters on Governor's Island, New York. At the beginning he knew that he would have the hardest job in the islands, the Department of Mindanao, which meant the setting-up of civil government there. Until then the army had held Mindanao for its own. There had been no pretense of establishing civil government. This Moro province comprises the island of Mindanao and the islands adjacent to it to the extreme southern limit of the archipelago. There were such chaos, lawlessness, and disorder as only those who have personal knowledge of how the Spanish left these islands can easily imagine. In comparison, many of the tasks of the army and of the civil authorities were elementary.

THE HARD TASK IN MINDANAO

The situation demanded an administrator as well as a soldier. General Wood in Cuba had been both administrator and soldier.

In the Moro province there were more than twenty different tribes, united in nothing except their virulent hostility to the whites. They held many grades and shades of religious belief and disbelief, from Mohammedanism to paganism, with a few Christians and Chinese Confucians in the towns. Spain never maintained more than a shallow pretense of authority over this section of her domain. Her policy had been one of neglect. The petty chiefs were jealous of one another and hostile to white men. Perplexing and intricate tribal and religious questions, the like of which we had never been called upon to adjudicate in our governmental activities, had to be settled. They included slavery and polygamy. It was a country into which we had been able to penetrate only by force, as Pershing, Davis, Baldwin, and Sumner did, with strong bodies of troops. They had to fight their way in and to fight their way out. Everywhere they went they met and left resentment and sullenness. These chiefs had to be taught that they now had no supine and nerveless Spaniard to deal with, but the soldiers of a nation that required their submission and coöperation as a necessary means to a laudable end. But, till General Wood came, the American commanders, doing their best, had not been able to exact even a nominal submission from the Moros. They were loyal as long as they were watched and they could be watched only as long as it took them to leap from the trail into the jungle. The delay in the establishment of civil government was explained on the score that conditions were not ripe. The simple truth seemed to be that they were waiting for the right man. To "save our face" — a supremely important consideration when dealing with the Oriental — required that civil government, once inaugurated, should be maintained successfully.

A STUDENT AS WELL AS A SOLDIER

On his journey to Manila, General Wood spent weeks in India, Ceylon, Java, the Straits Settlements, and other colonies. He was studying colonial administration. He talked with British and Dutch officials, inspected their colonies, investigated their systems, went among the natives and questioned them. He collected case after case of statistics and books on colonial government. A visitor sitting with him one day in his library in Manila glanced at the book-shelves that covered three walls of the room. Most of the volumes were on military and colonial subjects.

"I 've gathered those together since I came out here," remarked the General.

"It is a fine collection. When do you expect to find time to read them?"

"Read them?" replied Wood, "I 've already read every line in every one of them. They 've helped me a lot."

When he reached Manila he reported to Governor Taft and was immediately appointed military commander and civil governor of the Moro province. The Moro government is different from any other provincial government in the Islands. It has legislative powers of its own, a legislative council, and district governments. By his dual powers — civil and military — General Wood had almost unlimited authority. He was not the power behind the throne. He was the throne itself, the Great White Sultan, and every other sultan, rajah, maharajah, and datu ruler in the province were his subjects. They began to realize this dimly before he had been established in his capital a month. When he took up this task, the government of the province was a plan on paper. He had to make it a province in fact.

He remained in Manila a week. With

Governor Taft he went into the civil aspects of the situation; with General Davis, the division commander who had preceded him, he discussed the military problems. When he assumed command in August he was familiar with the conditions. But he knew that second-hand knowledge was of limited value in enabling him to deal wisely with the details of slavery, polygamy, and conflicting racial and tribal customs.

ATTACKING THE PROBLEM IN THE JUNGLE

"Gentlemen, be ready to leave here to-morrow early," was the order he gave his staff. "We have got to learn this country and the people from personal acquaintance and observation." Upon reaching Zamboanga he plunged into the wilds the next day, without resting or unpacking more than his horse equipment, and disappeared for a month. He and his staff were continually on the go over mountains and through jungles, on horseback and, when the country was broken, on foot, across rivers and inland lakes in native canoes, and emerging occasionally on the seashore to ferry from one island to another. The Moros came to see him. They were shrewd enough to surmise that if they did n't go to him he would go to them. Curiosity, a concealed cunning, and hope of profit moved most of them. Each was anxious to impress upon General Wood that it was with him, and not with any of the others, that it would be worth while to treat. He showed no favoritism. He treated with all and dealt fairly with all. He impressed upon them that it would be to their advantage to be open in their dealings with the representatives of the United States. But they had been so tricked for centuries by the Spaniards that they were not quite willing to accept this doctrine. This was unfortunate for them and troublesome for General Wood, for later on he had to kill many of them. There was no alternative.

"The Lord only knows how he did it, but he satisfied them," says an officer who was with him. In one town he was the Great White Sultan receiving his subjects in state, and in another a judge dispensing justice. In the one capacity he conferred with the Moros, listened to their views, told them his own views with candor, explained what the Government expected of them and what they might rely upon getting from the Government in return. As judge he weighed the evidence of disputing chiefs, handed down decisions, patched up blood feuds that had endured for generations, forced everybody to shake hands, and dismissed them with the injunction to behave themselves. On this first tour General Wood met every native chief of importance, inspected all the military posts and stations, laid the foundation for his plan of government, and spared a few days for a flying trip to Borneo to pay his respects to the governor. Conditions in Borneo were very like those in Mindanao.

THE RAJAH WITH A BOIL

In Jolo there was a mess. The puffed-up Sultan, with whom General Bates in 1899 had made a treaty by which the Sultan engaged to keep order, was away in Singapore, having a "time." His brother, Rajah Mudah, was acting as regent. The sub-chiefs and datus were in a great row. The Moros in Jolo were murdering and robbing, all over the island. General Wood sent an expedition to find out what was the matter. It was not a punitive expedition, but rather one meant to let the natives see the stalwart soldiers of the United States and understand the futility of resisting them. Mudah was sulky. The General sent him a polite invitation to visit him in camp near Maibun, the Rajah's town. Mudah returned word that he was ill. Another invitation failed to budge him. General Wood ordered Colonel Scott, who is now commandant at West Point, to pay a call upon the sick Rajah, and to take along a company of infantry. Colonel Scott and Captain Howland found the Rajah lounging among his pillows. He greeted them in the languid accents of the sick. Solicitous inquiries about the nature of his malady were made. The Rajah had a boil. Colonel Scott was deeply sympathetic. Would the Rajah object to showing his boil? Perhaps the visitors might be able to suggest a remedy. The Rajah did not show his boil. Captain Howland put his company into line. The Rajah sat up with a jerk, and Moros came running from all directions to see what was happening. Colonel Scott very quietly explained that the soldiers had been sent as a guard of honor to escort the Rajah to the General. If the Rajah was quite sure that he was feeling sufficiently strong to travel they would go.

Peering through half shut eyes, the Rajah pondered for a moment. Then he announced

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"You 've been a captain
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to eat hardtack and bacon, he did it too; that, when there were swamps to plod through, he was right along with them; that, when reveillé sounded before daybreak, he was usually up and dressed before us; that, when a man was down and out, and he happened to be near, he 'd get off his horse and see what the matter was, and fix the fellow up, if he could; that he had a pleasant word for all hands, from the colonel down to the teamster or packer; that when he gave an order it was a sensible one, and that he did n't change it after it went out; and that he remembered a man who did a good piece of work, and showed his appreciation at every chance.

"Well, the youngsters began to swear by Wood, and the old chaps followed, so that from 'cussing him out' they began to respect him and then to admire and love him. That 's the word — love. It 's the easiest thing in the world to pick a fight out there now by saying something against Wood. It is always the same when men come in contact with him. I don't honestly believe there is a man in the department now who wouldn't go to hell and back for Leonard Wood. He draws men to him, they feel that he is a big man. Take the older officers, the chaps who were soldiering when he was a 'kid.' They all feel that, while they know their business, he knows it a lot better than they do, and that he knows it by instinct, backed up by learning."

PROMOTION BY SELECTION

Now it is this sort of service — in the Philippines — that has made what I call the new army. It is well enough in the usual run of smooth events for all promotions to be made by seniority. But, when it comes to dealing with Moros, it is the mettle of the man rather than his age that counts.

It is in keeping with the spirit of the new army that General Wood should believe in the principle of promotion by selection as the best system to bring the best men to the top. The mistakes due to favoritism are fully discounted by general increased efficiency all along the line. The fittest survive, as they do in business and industrial organizations. A young officer, who was quickly promoted on General Wood's recommendation, told me what the General said to him.

"You 've been a captain only fifteen or twenty minutes and you 're mighty young to be a major; but you 've earned your promotion. Try to bear it modestly. There are lots of young men in the army who are as good as you, and better, perhaps, but, unfortunately for them, I don't know them. I do know you. If you had n't earned it, you would n't get it.

"As you know, I believe in promotion by selection. You 're an example. Take a class of a hundred young men who are graduated in law or medicine. Ten of them, perhaps, will be extraordinarily successful, ten will make a great success, ten others will be fairly successful, and so on down the line until you come to the fellows who are just getting on. Why should young men in the army be different? Men are alike, and the young men in the army resemble the rest in their quality and the degrees of their attainments. Why should the best and most capable be held down to the level of those who just get on, who merely do enough to hold their commissions by a system of promotion by seniority? It robs the army of incentive. Competition spurs on men, in or out of the army."

Sickness compelled General Wood to return to the United States for surgical treatment in 1905. He left Mindanao the best Governed province in the Philippines. The Moros were pacified and docile for the first time in their history. The civil branch of the Government was as efficient as the military. In time, after his return, General Bliss, who had been Wood's right hand man in Cuba, took over the Moros, and General Wood was in full command of the Philippine Division.

A COMMANDER OF THE PHILIPPINES

With the broadening scope of his duties, army officers say that almost immediately throughout the archipelago there was a change in the spirit shown at garrisons, posts, and stations. He devised a new system of garrison and field training, dividing the year into two parts, the rainy season for garrison work and the dry season for field duty. He instituted the division military and athletic meet. This placed a premium upon competition and individual and concerted effort by officers and men. First, each department had a meet, the winners being detailed for the final tests, one against the other, at the division meet. In each regiment the colonel was compelled to send his best company or troop. Each department commander sent his best battery, pack train or wagon train. Assembled at the Pasay camp they buckled to it in

strenuous, whole-souled fashion to exhibit the results of their training under the system which General Wood introduced. The results were marvelous.

VIGOROUS PERSONAL HABITS

General Wood's methods are not spectacular and they may be considered commonplace. He does at once whatever comes to his hand. In Manila he lived in the Military Plaza in the Calle Real, surrounded by his staff officers. It was the light in his office that always burned later than the rest. Out of bed before sun-up, after a gallop, a sea bath and breakfast, he was at division headquarters in old Fort Santiago by the time most Manilans were taking their coffee. Until mid-forenoon he took up special matters and listened to callers. The division adjutant-general came at eleven o'clock with his armful of papers. The General has Mr. Taft's genius — for it is a genius — of absorbing the contents and purport of a document while seeming merely to skim through it. He grasps a point immediately, and a question or two suffices to bore into the vitals of a report or an official project. Luncheon was followed by a long afternoon at his desk, then another ride, a set at tennis, a bout with gloves or foils, dinner, and, in the evening, unless he entertained or dined out, more work.

He will set officers at important jobs, sometimes requiring days of investigation, listen to a verbal report requiring maybe a half hour in the telling, put questions that are certain to bear upon the details that have been overlooked, if there are any, and finally put the subject aside with an "all right" and a nod. That ends the chapter, if the General is satisfied. If he is not, it is not unlikely that the sunrise of to-morrow will see him off by boat, horse, or train to do a little investigating himself. In the Islands, whenever a situation arose which he thought required the personal attention upon which he sets so much store, he would go to it, instead of depending upon the telegraph, or calling in officers to tell him about it. His desk might be stacked with papers and a dozen engagements for the day listed. But he would drop everything, order up steam on his boat, tell his aide to get ready, have telephone messages sent to the persons whom he had engaged to meet, and in an hour be sailing out of the harbor, to be gone for a day, perhaps a week or longer.

During a cholera scare a civil official in Manila went to him to discuss the coöperation of the military with the civil government in quarantine regulations. He came out in fifteen minutes with a wondering expression on his face. "I 've been talking with Wood," he said. "I started in to explain a system of quarantine that I 've been studying for two years. I thought I had it down pat, too. In ten minutes I realized from his questions that he knew more about it than I had learned in two years, or probably will in two years more."

The carnival at Manila last spring attracted thousands of visitors from distant parts of the Orient. General Wood and the army made it the success that it was. The army pageants and the army athletes and competitions were more than half the show. A plan was made to use the carnival as an opportunity to show the regard in which General Wood was held in the Philippines as a soldier and a man. But he spoiled this programme by sailing away a week before the carnival opened. But he could not escape the round of complimentary and ceremonious entertainments extended by the clubs and societies and the military, governmental, civilian, and business circles of Manila. Even the Filipinos banqueted him, and they have had no especial love for the army or its commanders. He was the first commanding general of the division whom they had so singled out for approval. It is no easy or customary thing for one man in official life in Manila to win the good will of military and civilians, of business men and Filipinos. Mr. Taft did it. So did General Wood, and so did Governor-General Smith.

In the Philippines they bracket Wood with Kitchener, and vow that had Wood done in an English colony what he did in the Philippines he would be praised and rewarded as Kitchener was. An English colonial official whom I met volunteered this comparison, and he added that in England Wood would have gone farther than Kitchener. "He has Kitchener's soldierly qualities and genius for administration, but he also has tact and statesmanship."

General Wood probably will go back to the Philippines at some time, after his departmental service in New York. Surely, if he has his way and keeps his present mood, he will.

AN IDYL IN OKLAHOMA WHEAT

SEVEN AND ONE-HALF BILLIONS FROM THE FARMS

OUR HARVEST AND ITS WORLD-WIDE MEANING—THE KIND OF MAN THE FARMER OF TO-DAY IS—WHAT THE AGRICULTURAL DEPARTMENT IS DOING

BY

EDGAR ALLEN FORBES

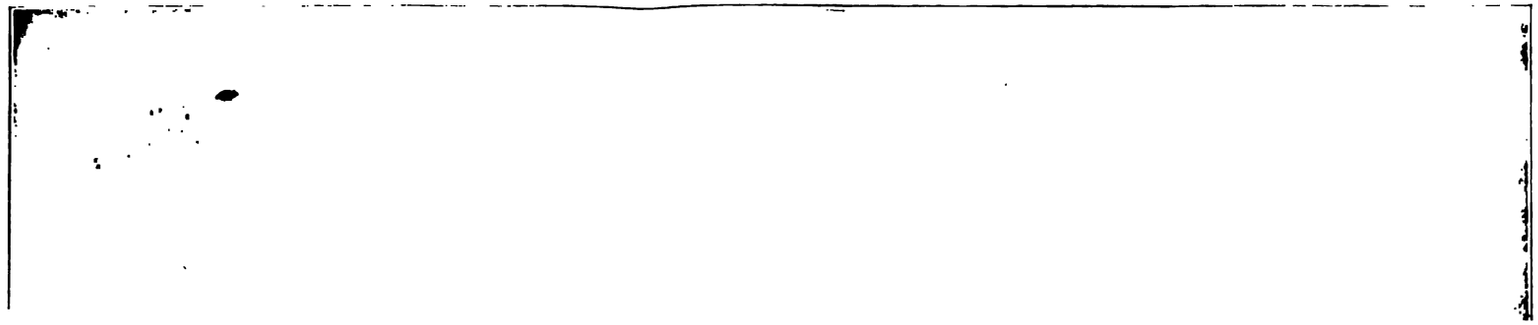
NOW, while the American farmer is gathering the year's crop into his capacious barn and lying awake at night wondering what he will do with the money, let us figure out what a year's farming means to the United States. The official returns for 1907 will answer for our purpose.

The American farmer's corn field measures a trifle short of 100 million acres — an area greater than that of Norway or Japan and

A PASTORAL IN NEW ENGLAND HAY

SOUTH DAKOTA WHEAT BEFORE THE HARVEST

"The American wheat field occupies more space on the map than Protugal and Liberia combined"



A PROCESSION OF HARVESTERS SWEEPING ACROSS A WESTERN WHEAT FIELD

The largest fleet in the world, with its 383 vessels of all sizes, would have required fifteen round-trips to move our last year's wheat crop

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If the British Isles had p
would have been necessary
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A THRESHING SCENE NEAR ENDICOTT, WASH.

nearly equal to that of Germany or France. If the British Isles had planted so much, it would have been necessary to plow up even the streets of London. The American wheat field occupies more space on the map than Portugal and Liberia combined. The South's cotton field would spread over one of the Central American republics like a white blanket with a generous margin to tuck under — and so would the oat field. Our alfalfa and hay fields were larger than Saxony or Alsace-Lorraine, and our potato-patch was bigger than Porto Rico.

Beside such fields as these, the farms of the rest of the world look like the little experimental plots that our children play with at the agricultural schools. And yet the great ranches of the West have not come into consideration at

HARVESTING THE OAT CROP OF WISCONSIN

The American farmer's oat field is as large as Honduras

A SHIP LOADING WITH WHEAT AT ONE OF THE LARGEST GRAIN ELEVATORS IN THE WORLD, SUPERIOR, WIS

A "HEADER" IN OPERATION

The horses are hitched to the rear of the machine, which delivers the heads of wheat into the wagon alongside

all. There is one in Texas, for instance, that is twice as large as the state of Rhode Island. It is fifty miles from the front porch to the front gate, and a railroad runs through it for more than a hundred miles. And the ranch belongs to a woman. There is another ranch in California so large that it can spare 38,000 acres for an artificial lake. One field of alfalfa, a thousand acres of waving green, yields 5,000 tons of hay a year. The wheat on this ranch is grown on such a scale that only heading-machines are practicable for its harvesting. It is so far from the kitchen to the outer limits of the field that a dining-car drawn by six horses is a part of the harvesting equipment. Oh yes, this is a farming country.

It is true that the American farmer grows only about one-fifth of the world's wheat, but that is about twice as much as all Europe produces. But he grows four of every five bales of the world's cotton and seven of every eight ears of corn. The state of Illinois alone produces about half as much corn as is grown in all the world outside of the United States. We raise a long list of other crops — barley and beets, potatoes and peaches, hay and hops — that would appear large but for the over-

CALIFORNIA WHEAT ON ITS WAY TO THE WAREHOUSE

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IN A WESTERN CORN FIELD

"The state of Illinois alone produces about half as much corn as is grown in all the world outside of the United States"

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A REPRESENTATIVE SCENE IN A SOUTHERN COTTON FIELD

The American farmer produces four of every five bales of the world's cotton

whelming proportions of the principal crops. Then there are the crops that the farmer grows on legs — 339 million hogs and 211 million sheep were fattening on the farm last January. If the American milk-cows and other cattle could be placed one behind another, they would extend for a distance of three million miles. The line of horses and mules would be even longer. All in all, the American farms and their equipment are valued at about $28,508,000,000. Just how much money that is nobody knows, nor is it easy to recall anything big enough with which to compare it.

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LOADING THE YEAR'S COTTON INTO CARS

And yet there are tourists who pause on Fifteenth and G Streets, in Washington, point to the United States Treasury Building, and say: "Behold the foundation-stone of the Republic!" The money in that building is but a pebble in comparison.

One feels the same sense of helpless and hopeless confusion when he goes out to take a sweeping view of the harvest — and there are few more inspiring scenes in the world than the United States at the harvest time. With his 28½-billion capital, the American farmer produced last year a crop worth (at the farm) 7½ billions — nearly twenty-five cents on the dollar. Suppose that all of the year's corn had been shipped to Europe: it would have required 4,128 express steamers of 18,000 tons register to deliver it. Suppose that the year's wheat had all been sent to save the Far East from a great famine: the largest fleet in the world, with its 383 vessels of all sizes, would have required fifteen round-trips to move it. Take tobacco — such a minor crop that most people never think of it in connection with farming: if last year's tobacco crop had been made into cigars, the supply would have lasted 153,000 men for fifty years, each man smoking ten cigars a day.

If we look at the farm value of the year's products — which is much below what you and I pay for it in the market — we are again

BALING HAY ON A CALIFORNIA RANCH

confronted with figures that are beyond comprehension. If the corn grown in 1907 had been sold at one time and paid for in gold, there would have been only a few gold coins left in the United States outside of the pockets of the farmer. Either the wheat or the cotton would

AN ALFALFA FIELD IN CALIFORNIA

One ranch in this state has a field of 1,000 acres

EST ON RECLAIMED LAND IN CALIFORNIA
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"The live stock sold from farms and slaughtered on them is worth nearly twice as much as the cotton crop."

The bigness of American farming is also shown by the costliness of a day's drought, as estimated by men skilled in that accomplishment. At the critical stage of the corn crop, every day was worth twenty million bushels; wheat, six millions; potatoes, three millions; tobacco, seven million pounds; beets, six million pounds of sugar. Cotton offered thirty million pounds of lint for the favor of a

Courtesy of the *Sunset Press*, San Francisco

ING THE PEAR CROP IN CALIFORNIA
importance of packing fruit in the orchard to avoid frequent handling

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single day of growth during the full term. Altogether, during the crop-growing season, every favorable day was worth to the nation $50,000,000.

There is perhaps no other kind of business where a man may have so much to show for a small investment. The manufacturer who takes pride in the dray-loads and car-loads of his product, and inflates his lungs at the sight of his lithographs in the street-cars and on the meadows — has invested a fortune in his factory. But you may see the same sort of pride of achievement in the Western farmer if you will sit beside him in his double carriage

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THE BEST TYPE OF WAREHOUSE FOR CORN

HEREFORD CATTLE ON THE WESTERN PLAINS

A DAIRY HERD IN IOWA

"Dairy products are much more valuable than any crop except corn, and are equal to one-third of the value of all cereals"

THE COMPARATIVE IMPORTANCE OF THESE TWO CROPS DEPENDS UPON WHETHER ONE'S TASTE RUNS TO MELONS OR PUMPKIN PIES

and drive for a mile down the barbed-wire lane that divides his walls of rustling corn.

The wheat farmer of Minnesota, the cotton grower of Texas, the cane planter of Louisiana, the hay-maker of New York, and the sheep-herder of Wyoming all have facts as marvellous as those of the Kansas corn-grower, but they are not so gifted with the power of imaginative description. But the tales that he tells are scarcely less wonderful than the facts that the statisticians give. I know of a county in Kansas which had 236,000 acres in corn when I saw it last. To move the crop that grew in that county during that year would have required 880 trains of twenty-five cars each. With a three-mile headway between trains, they would have stretched from Kansas to San Francisco. And corn was but one of a number of products that brought fame and dollars to the farmers of that county.

It is important to remember that all this vast wealth of the American farmer has been produced by methods that are wasteful and unscientific to a degree that arouses the indignation of the experts in the Department of Agriculture. The farmer has often been notoriously careless about the kind of seed that he plants, and about the fertility and the preparation of the soil into which it falls. His implements are frequently as crude as his

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SHEEP IN A FAT PASTURE

"The live stock sold from farms and slaughtered on them is worth nearly twice as much as the cotton crop"

methods of cultivation, and his harvest has been much smaller than it should have been — much less than it will be next year, and the next. Moreover, Assistant-Secretary Hays says that only about half of our available farm area is now producing; so there is no need for assuming that the crop statistics which form the basis of this article are anywhere near the high-water mark. Referring again to Secretary Wilson's report, we find such possibilities as these well within reach:

(1) The cotton planter could easily double or treble his present crop of two-fifths of a bale per acre, and he has an available acreage of more than three times that now under cultivation.

(2) The corn yield per acre can be increased by one-half within a quarter of a century, and without any pretense that the limit has been reached.

(3) There is no sensible reason why half as much again of wheat may not be had from an acre within less than a generation of time.

(4) The same is true of oats, barley, rye and buckwheat.

(5) Potatoes should double their present production of less than 100 bushels to the acre.

(6) Wherever only 600 to 800 pounds of tobacco are had from an acre, three-fourths of a ton is the prospect.

(7) With the cannery and the refrigerator-car and the refrigerator-ship at hand, the future of fruits, berries, and vegetables is too large to estimate.

(8) The same is true of live stock, under scientific methods of breeding and testing.

(9) If a present movement to induce the American hens to produce each one dozen more of eggs yearly should be carried forward, the increased value of the country's product will be about $50,000,000.

The most surprising fact connected with farming is that, in spite of this tremendous production, the prices of farm products have been rapidly rising. A comparison of the average farm price of a number of crops in 1898 and in 1907 will show the advance that a decade has brought about.

Wheat advanced from 58.2 cents a bushel to 87.4 cents; corn from 28.7 to 51.6; cotton from 5.7 cents a pound to 10.4 — nearly doubling in value within ten years. The rise in potatoes was from 41.4 cents a bushel to 61.7; hay advanced from $6 to $11.68 per ton; oats from 25.5 to 44.3 cents per bushel; barley from 41.3 to 66.6 cents.

Nearly everything that grows on the farm increased in selling value at similar ratios. A horse that was worth $34.26 in 1898 sold for $93.41 in 1907, on an average; for a mule, the average price soared from $43.88 to $107.76. A pig that brought $4.93 in 1898 brought $6.05 ten years later. The price received for eggs increased from 11.15 cents per dozen in 1899 up to an average of 18.2 cents in 1907 — but the same eggs were selling for nearly twice as much in New York City. There was a similar advance in the market-price of dressed poultry.

The cartoonist — who reflects public opinion more frequently than he creates it — must change his type, or else leave the farmer out of his scheme of things. The chin-whiskered, "hayseed" type must disappear; instead of the lanky individual with one suspender, the comic papers will show a rotund farmer with an automobile and dollar-mark designs all over his fancy clothes. For the farmers — there is no exaggeration about this — are rapidly becoming the most prosperous class in the nation. And the unsuccessful farmers here and there do not detract from the soundness of this assertion.

Ask any man who lived in the cotton-belt twenty years ago, and he will tell you that a very large proportion of the farmers were "carried" by the merchants from planting-time to picking-time. The tenant-farmer rented "on the shares," often promising to give the owner one-half of the crop because the tenant could not furnish even the mule that dragged his plow. Next, he bought on a credit the guano with which to fertilize the unproductive soil; and the same merchant furnished his family with food supplies during the spring and summer — all at an advance on the cash price that sometimes amounted to 40 per cent. And when the farmer's cotton had been picked and ginned and his pitifully small share sold, many times the proceeds were insufficient to pay the merchants' bills. And this sad state of the tenant was, to a less distressing degree, the state of his landlord. No such condition exists throughout the South to-day; the tenant has reached a point where he can pay cash rent, if required, and he is no longer a peon.

Take the Middle West. It is well within the memory of a younger generation that mortgages were plastered over a very large part of the farming land — even of the fine farms — and lawyers were enriching themselves with

foreclosure fees from Eastern capitalists, many of whom regarded it as a misfortune that they were compelled to take over the farms. Within the last few years more than a million of these mortgaged farms have shaken off their encumbrances, and their owners have often been glad to get as much as 2 per cent. interest on deposits in the savings-banks.

And the hour of the full-tide has not yet come. With a population increasing rapidly by birth and immigration, with a world of hungry mouths to be fed in large part by the United States, and with better methods of farm management, the farmer has no cause to fear a collapse in the selling-price of his product. The city-dweller's loud plaint over the increased cost of living assures him of this.

The age of the rural "calamity-howler" is past. Nobody now need pity the farmer's hard lot. The mechanic on half-time, the clerk on over-time and under-pay, and even the more prosperous "middle class" are looking toward the country with envious eyes. For, as Secretary Wilson sums it up, "the farmer has a new horizon far back of that of his prairie and his mountains, which is more promising than the sky-line of the city."

You may discover evidences of this back-to-the-country determination all about you — in the increase in the number of small suburban homes, in the "want" advertisements for small farms, in the conversations of men whom you meet at luncheon or in travel. I overheard it last on the deck of a Potomac steamer, which was drifting down that great river at sunset when its waters were ablaze with a golden afterglow — an hour for young men to see visions and unfold them. A Government clerk was telling to another his dream of a dazzling future. He was in the Treasury Department, with influential friends who had found ways to advance him by quick promotions, and he felt that he had the world by the tail. Adown the future, he saw himself one of the nation's financiers — and the vision looked good, both for himself and the nation.

When the dreamer had finished and passed along, two other young men, strangers to each other, told of their own dreams. Both were from the soil; both had wearied of it and come to the city; both had "made good." The first was getting ready to branch out for himself, and his opportunity was at hand — a high-class grocery business, with a meat and vegetable market attached. One consideration made him hesitate, and it was this: Away back in the Virginia hills, on a small tributary of the Potomac, he had an interest in a farm, the profitless farm on which he had been born. Looking back at it with an experience in handling country products at the market end, he saw clearly where he could make just as much money without shouldering all the responsibilities of a large city establishment. He had figured out just what he would do with the fruit that now wasted in the orchard; with the unproductive acres that would yield small fruits; with the vegetables that were so marketable in a can; with the dairy products that were too abundant for the local market.

"But what about country life?" interrupted the second. "Won't it be pretty tame after having lived in Washington for so long?"

"Tame!" said the first, in contempt. "It is the city life that 's tame. I don't know any fellow on Pennsylvania Avenue that gets as much out of life as the country boy with a new top-buggy."

The second boy was the son of a poor tenant-farmer, who had eked out a joyless living by moving from one worn-out farm to another. This boy's entrance into the city had been an emancipation from serfdom, and it led into a future more alluring than that of the other, or even of the Treasury clerk. But he is going back to the farm, he says, in the fulness of time, when he has made enough money to farm differently from his fathers.

"But I am not going to buy a cattle-ranch, or an orange-grove, or a Western quarter section," he added. "I am going back to one of my boyhood homes and buy one of those worthless farms and show what I can do with it. That 's the way to make money and have a real object in life at the same time."

Then he went on to explain his idea of getting fun out of farming while making money. To solve its knotty problems, to combat the unpropitious forces of nature, to make every acre grow something every year, to grow crops that the soil never knew before — and at the same time to make a real home, with the many luxuries that are within easy reach of the farmer's family — that was his idea. And it was not fanciful. He told of the library of good books on scientific farming that he was accumulating and studying; of his file of "Farm Bulletins" and garden periodicals; of plans for ice-house and lawn, watermelons

and strawberries, cattle and chickens, and any number of other things.

"I am not worrying much about the big crops," he said. "I know that I can raise corn and wheat and big pumpkins; I could do that in the old days. What appeals to me more strongly than the money end is the possibility of so many good things that I never knew on the old farm. That and the mastery of the soil make it well worth while."

Much of the credit for the broadening of the horizon is due to the farmer himself, for he has been learning from the mistakes of his fathers and from the methods of some of the best immigrants that Europe has sent us. But a very large portion of the credit belongs to the Americanized Scotchman who has for twelve years served the nation as its Secretary of Agriculture — the longest period that a Cabinet officer has ever served. Himself a successful farmer — he earned the price of a farm by hard work as a young man in central Iowa — he had also the wider experience that comes to a man who has sat in Congress and also held a professorship in an agricultural college when Senator Allison commended him to President McKinley as the man for whom he was looking to preside over the Department of Agriculture. He has been there ever since, working with his coat off to make it the world's greatest scientific university. A large-sized book would be required even to catalogue the changes that have been wrought under his leadership. Suffice it to say that during these twelve years his department has advanced from a four million to a fifteen million dollar institution, and for every dollar that he has expended the nation is now twenty dollars richer. It has been conservatively estimated that the net gain that has come to the farmers from the Department of Agriculture through improved methods would pay more than one-third of the cost of all other departments of the Government. And when one stops to say that Assistant-Secretary Hays, Dr. Knapp, and Dr. Galloway have been men after his own heart in carrying out his policies, only a beginning has been made in a long list of practical, scientific men whose identity is lost in the great department which they serve.

And other departments and bureaus have been helping the farmer on the high road to prosperity and happiness. The Post Office Department has established its free-delivery routes, so that the farmer need no longer unhitch his horse from the plow in order to go to town for his letters and his newspaper. If the plans for an enlarged parcel-post service are executed, the farmer's family may soon shop in New York, Chicago, and St. Louis as easily — and more satisfactorily — than at the country store.

One of the latest activities of the Government is a practical plan for laying hands upon desirable immigrants just landed and placing them on the farms where they are needed and where their own future is brightest. An office has already been located in New York, and the farmers of the entire country are being instructed in the use of this first-aid to the farmer. Here is how the plan is worked in actual practice:

On January 15th a Michigan farmer wrote for a farm-hand, but objected at first to furnishing transportation. Finally, on March 21st, a young German was bundled on the train two days after leaving Ellis Island and was landed on the Michigan farm. On April 14th, the farmer wrote that his brother had a place for a second man just like the first — and transportation came with the letter. One week later the man was sent. On May 2nd, the first farmer wrote for another man and his wife, and before this order had been filled there came another request for a man for his neighbor.

In the face of such a concrete case as this, it is safe to assume that both the farm-labor and the immigration problems are on the way to solution.

There are also epoch-making plans under way whereby rural education will receive a new impulse — plans so colossal that few have yet grasped their significance. Once it was the fashion for a man with a growing family to say that he must move to town in order properly to educate his children; presently we shall hear men talk of moving to the country for that purpose.

So, if John insists upon leaving the old farm to become a clerk or a wagon-driver, worry about him (if you must) but do not worry about the farm. He may come back to it by and by, if he be a youth of good sense, and when he returns he will be much more efficient. And, if he does not return, the farm will not suffer and the prosperity of the nation will be undisturbed. Somebody is waiting to take his place on the cultivator, for farming is soon to be numbered among the overcrowded professions.

A STREET-CAR CONDUCTOR'S STORY

FIFTEEN OR EIGHTEEN HOURS' WORK A DAY AND SUSPICION FROM THE START DEGRADES MANY FARE-COLLECTORS IN NEW YORK—THE WAY THAT GRAFT WORKS DOWN IN AN ILL-MANAGED TRACTION SYSTEM TO THE VERY MEN ON THE PLATFORMS—A STUDY OF BAD CORPORATION MANAGEMENT AND MORALS

BY

ALBERT SONNICHSEN

IN THE hot months of last summer a Lexington Avenue, New York, street railway conductor was sentenced to one month in the workhouse for abusing a passenger. The indignant magistrate also made him the pretext of a lecture on the outrageous behavior of conductors in general, which was editorially applauded next day by the daily press, and followed up during the week by public approval in the form of countless open letters.

I took special interest in the incident at the time, chiefly, perhaps, because I was then myself "matching nickels" on the end of a Bronx trolley car and because I had lately read Kipling's story, "In the Matter of a Private." It is a psychological study of the misbehaviour of Private Simmons one steaming hot night in India. Private Simmons paid a heavier penalty than the Lexington Avenue conductor, but in both cases circumstances were wonderfully alike.

My roommate and I broke in together. We were not going in for sociological instruction. We went on the job because of economic expediency, which makes a wide difference in the point of view. It meant real business to us.

During our week's apprenticeship we first came into intimate contact with the men whose daily vocation separates them from the general public with a lively, mutually felt animosity. There was a small, grimy restaurant opposite the car-barns where they gathered thickly at two in the morning, after the day's riding. A first impression suggested conspiracy. They sat about the tables in groups; the conversation slackened as we, strangers, entered, and they looked upon us suspiciously. It was only when the motorman, with whom my roommate was breaking in, greeted us that they accepted us.

I did not like them then, for it was obvious that the public sized them up rightly. They were men of all ages, of various nationalities, from all classes, of previous experiences of widely different kinds, such as you found in the volunteer companies during the war. But never had I been among a crowd of individuals so unanimous in a disposition to ill-tempered wrangling, sullenness, and foul speech. The motormen were Irish by a huge majority, but here their Celtic wit seemed to have soured into tritely profane observations on each other's personal peculiarities. What humor there was in their remarks was cynically bitter.

Among them were several college boys working through the summer months, but it was by chance rather than by observation that some weeks later I came to distinguish them from the rest. There were an ex-clergyman and a doctor, but these, too, I failed to discover at first, for the reason that even a man's speech adapts itself to environment. Probably there were other intellectuals I never discovered. The mass of the motormen were common laborers, the conductors ex-clerks or mechanics, some of the celluloid collar kind. About one out of twenty was on the job as a permanent thing.

Then came the day when I mounted the quarterdeck of my own car. By chance, Jim, my roommate, and I were together. I think there was a touch of enthusiasm to our beginning, a slight thrill of motion as we shot away from the terminus and whirred down the road toward the thick of the city.

"Thirty minutes is your running time," the starter shouted after us.

And then, as though it had been lying low for us, we came into sudden contact with the general public.

To this day I do not understand how I

came to observe that Jim had his troubles, for my own hands were full from start to finish of those first fourteen hours. I need not dwell on mine just now. One incident I remember was when the power was turned off the wires for about ten minutes. Jim seated himself before his motor box.

"I am in a hurry," cried a well dressed woman in a front seat, "do move on."

"The power's off, madam."

"Yes, but do something, won't you?" she shrilled angrily. "Don't sit there like a wooden man. Shake that thing in front."

The rows we had at each terminus with the starters, the guardians of the schedule, became monotonous, but such a monotony you do not grow used to. At the first collision Jim carefully unshipped his controller and got down to fight.

"Ga' w'an." the starter remonstrated, in more fraternal terms, "don't be a chump. I can't help it if I am put here. I got to make a livin'. Don't go losin' your job for the satisfaction o' pluggin' me."

Jim was over six feet, and the starter was a very small man. But his reasoning seemed so sound that Jim followed it.

It was all about making headway. About midnight when you picked up a dozen passengers a trip, the thirty-minute schedule was possible. At other times it was an unattainable ideal except to such expert motormen as few become.

That hunted look must have been visible in our eyes when we crawled into the reeky atmosphere of the chop house at two next morning. One of the college boys skidded his chair over beside me and became cynically sympathetic.

"You won't mind it so much in a few days," he observed. "Work it out Friday, and Saturday, and after Sunday's riding you 'll attain that blessed state of dopiness wherein all things are alike to you. Be wise, and never ask a day off. You toil along six days and the seventh, too, otherwise you become conscious again. Nature chloroforms you to the job."

Which was entirely true. For three days I climbed the tail end of my car at ten in the morning, and hung it out till past one next morning. This was the regular routine seven days of the week for all except those old timers favored by the company with day-runs. They worked from five in the morning till six at night, but were often stuck till midnight. Often I was relieved for dinner in the early afternoon, but never for supper. It was safe to ask a day off once a month, but some went on four and five months without it. The working day averaged fourteen hours, but if you were working for your daily bread without graft, you wanted long hours, for on that job a man's life was worth only twenty cents an hour. Such was the daily grind; men went through it mechanically, stiff, dazed.

Gradually I yielded to the relieving stupor, but it came to me with a disagreeable shock one day that it must be fought off.

With other motormen than Jim a new trouble came to me. There was constant friction over headway.

"I 've got a green bell boy," said one old Irishman in response to the starter's nagging.

"Well, smash his head in with the controller," shouted the starter, as though irritated at having even to suggest the obvious remedy.

Other motormen gave no replies, but once out on the run they would start off a bickering that kept you raw all day. True, like all beginners, I had a steady fear of jerking the bell strap before passengers, especially women or children, were well on or off. But that was not the motorman's business; he thought only of reducing his headway. The constant badgering made me nervous, and unconsciously I became recklessly prompt.

A crowd was climbing aboard at an unpaved corner. I signaled just too soon. The car jerked ahead, and an unlucky German, a little dazed with beer, perhaps, went stumbling. In a normal, clear state of mind I could have saved him with a prompt reversal of the signal, but in my frantic haste I pulled the fare register. The German clutched, and dragged, and then rolled under the foot-board. When we picked him up he was a badly injured man.

It was not the policy of the company to blame me. When the company's claim clerk took down my affidavit, he tried to persuade me that I had smelt liquor from the injured man's mouth as I picked him up. I would not swear to it but, if it were true, his mind had been no more befogged than mine.

In two months I had to render four accident reports. Each time I had to wait many hours in the claim clerk's office, there being always a long string of men to make similar reports. Of course not all included injury to human life.

Their methods of evading possible future suits for damages are sometimes peculiar. Once I came into contact with a live wire outside the car barns. I was thrown down as if struck by a sand bag. They picked me up, my collar was loosened, and other efforts made to revive me, but the moment I showed signs of consciousness I was hurried up into the claim clerk's office, and a paper shoved before me.

"Sign it," said the clerk.

"What is it?" I asked, for I still was quite dazed.

"Only a formality."

I tried to write, but my arm quivered. Someone steadied it, and I signed. Later on, I had occasion to see this form. I cannot remember the exact legal phrasing, but it stated that the undersigned, having sustained injuries in the company's services, and in view of the regulation that the company did not allow possible claimants against it to remain in its employ, he, the undersigned, herewith renounced all claims against the company in compensation for guaranteed employment for two weeks, I believe, from date. I signed this "formality" on two occasions. If the first copy were ever fished out of the company's archives it would be seen by the signature that I had been in no normal physical state.

I drifted into our restaurant early one Monday morning, after a heavy Sunday's riding. The men were unusually subdued. One, a conductor, was speaking between bites. The rest brooded over his words.

"Sweeny could n't do nothin'," he was saying, "the kid's mother was holdin' it in her arms, screamin' like a wildcat, an' the father was lettin' out a blue streak of cuss words. Then he picked up a brick, where they 're buildin' a house, an' chucked it, an' the whole bunch was on Sweeny. All he could do was flap his elbows like duck wings. When the cops come, his one eye was hangin' out on his cheek."

"It 's a bleeding shame," growled an old motorman, "he was called up for headway two days runnin' by the old man, an' the starters givin' him hell each trip, together with gettin' stuck on his dinner relief four days runnin'. He had the fear of God in his eyes yesterday mornin'. I know what it is after a hard day's run, when ye see dead men dancin' up the track before ye."

"We 're all liable to it some day," said a second motorman, "but when my turn comes, you 'll see some o' the loons go down under my switchbar first."

Hatred of the public and sympathy for Sweeny were the keynote of each remark. Even the murdered child was relegated to an obscure background.

Now, when it comes to friction with the public, the conductor is worse off than the motorman. It demands of him a London policeman's knowledge of streets. He seldom knows the streets on his run; first, because the average conductor holds his job less than six months, and then, in that time he is seldom more than a week on one run. To the passenger this is aggravating, and the average passenger, not knowing these circumstances, takes no pains to hide his, or her, irritation.

Again, he should be polite. But "dead beats," especially women, the sort who become desperately absorbed in landscape when the conductor cries "fares," averaging at least one a trip, and risking him trouble with the inspectors of fare registers, make him snap-tempered with all alike. Then there is a certain class of the small bourgeoisie, who, perpetually snubbed themselves in their own shops, perhaps, find the conductor, a public servant, a convenient object on which to vent their spleen. Again the innocent majority suffer. All this is quite apart from the hard driving and long hours. But most galling to a beginner is the attitude of the company toward him, through its numerous inspectors and devices, assuming that he is by nature a dishonest rascal, a thief.

This is hard. But on the other hand, the company seems justified, for the fact remains that not one conductor in a hundred is honest.

I had already observed in our restaurant that every motorman, unless he were alone, ate and drank on some conductor's account.

"Go ahead, Bill," would be the encouraging remark, "I can't bear to see you go hungry. You 've been lookin' pale lately. Have another schooner, too, the keg ain't near empty."

One day an inspector shook out my fare register because it read "in" as we were going out. I lost more than a dollar for my oversight.

"That happened to me last week," remarked an old conductor after I had told my woes in the restaurant that night. "I lost eighty cents. In two trips I made it good. But I

felt mad, havin' that done to me before a carload of passengers. So I made it good again. I can't get over feelin' mad about it nohow. Every time I feel mad, I make it good. I get mad about ten times on week days, an' twenty on Sundays."

On my first pay-day I asked another how much he had drawn.

"Fourteen, this week."

"That 's good, is n't it?"

"Yes, it helps." He had not meant to be humorous, but a bystander saw the point, and our conversation became immortalized as a joke in the restaurant gatherings.

In my two months' experience I never met one conductor who pretended to be honest, except beginners. One poor fellow, a Jewish tailor six months out of employment and with a large family to support, declared he would not risk his job for graft. The first day, being confused by the newness of it, he found himself possessed of a surplus of fifty cents. Guiding himself by the book of rules, he turned in his surplus and made a note of it on his day-sheet. Next morning, he was summoned by the superintendent and asked to explain. It seemed to be regarded as a suspicious circumstance. Obviously it was supposed that he sought to secure himself against the possible observation of a "spotter," and so was trying to hide much larger peculations. The regulation that he had followed begins: "Conductors, to protect themselves, etc." It did not work out that way for him.

I was once told by a high official in the Metropolitan system that the amount of each man's graft is known but, while he remains within a certain limit, he is not disturbed, as it is an impossibility to find men who will be strictly honest on the job. My own observations verified this statement. Whenever I relieved a man, he invariably handed me a bunch of transfers with which to fool the inspectors. If he did not, I knew him to be a beginner. Conductors on lines to which I carried transfers would demand them from me. When the inspector sees a discrepancy between the clock and the number of passengers aboard, these fake transfers, properly punched, are shown him. My roommate, Jim, was even better able to judge. Experience teaches a motorman to detect grafting at once. Jim found only a few of the veriest novices honest.

There are a few conductors who hold down their jobs for years, grafting always within the safe limit. Usually they are men of large families. The samples I saw were, physically, human oxen, and intellectually, well — also oxen. In the Bronx, two dollars a day is a safe limit on the longitudinal lines and double that amount on the cross-town lines. That means about 10 per cent. of total receipts.

But the average conductor runs a short career, especially during the summer months. As many as fifty were "cut" in one week at West Farms. A typical case was that of a young Jewish boy with whom I was rather intimate. We met almost daily, and so I watched his progress.

He had been a factory worker at about ten a week, so the possibility of earning about fourteen was to him gratifying. He meant to be honest and to make a permanent job of it.

Gradually the usual stupor crept over him. But he worked well and was transferred to a cross-town line, where grafting is most common and honesty at the highest premium.

Then began his troubles. The inspectors began worrying and bullying him. Several times his clock was shaken out and lost him considerable amounts of money. One night he came to me, looking limp as a damp towel.

"It's fierce," he complained. "I 've been brought up by honest folks. Never took a cent that was n't coming to me. Last night I saw my cousin. He 's a clerk in the store where we buy our suits, and he tells me somebody in the company rakes four dollars off every suit, and some weeks they sell fifty suits. They cut men to make that graft pay. Then the inspectors make me ring up all the fares before I get them, and before I can get around to collect, they jump off and I lose them. I 'll have to do something this week. I owe my brother money for my suit yet."

He did do something; he began knocking down fares. Then began the constant terror of "spotters." A passenger had only to glance casually at the clock to put him into a panic. Each morning he expected the fatal summons. Then, thinking each day his last, he threw aside all restraint. Some days he knocked down fifteen dollars. But this accumulation of wealth seemed to give him little satisfaction, for he lost weight and grew lean about the jaws. Then, one day, he disappeared.

Variations of this course I saw constantly repeated. Men began honestly, then drifted

into grafting. For varying periods they went steadily along, within the limit. Then would come some unusually unbearable incident, either with the public or the inspectors or often a very hard day's riding, and they would go "must," like Mr. Kipling's elephants. I became expert in recognizing the symptoms; a wild look in the eyes, unusual snappiness of temper, and a general carelessness in behaviour.

"Bill's going it heavy," some motorman would say. "One fine day he 'll forget to bring his car back." Then one day you would see Bill in plain clothes, looking unusually jaded, and then he would disappear from the scene. "Cut," would be whispered about among the survivors.

This is the experience that thousands of young fellows go through in one year. They are average young men, brought up in honest homes, with the stuff in them of which good citizens are made. But after they have been hauled up before an angry-eyed superintendent and accused of theft, they are not quite the men that they were before. Then there is a burning sense of injustice. They feel vaguely that something outside themselves was to blame. They certainly got no satisfaction from their dishonesty while it lasted.

For I have repeatedly seen men who were grafting at the rate of thirty dollars a week, exclusive of wages, deliberately give in their badges to take up jobs paying from twelve to fifteen dollars a week. The old-timers, the ox-brained men who keep steadily within the limit, are the ones who stick. There is a story in the Bronx that one such fellow retired after many years and built himself a two-family house next to that of the superintendent.

I hope that I have not seemed to excuse street-car graft. I have tried to explain it. But before blaming, it would be well to consider the circumstances that I have tried to set forth. A man who is driven from fourteen to eighteen hours a day at work that tears the stiffest nerves. whose mind is reduced to the state of that of a baited bull, is in no condition to consider nice points of moral laws. He has been hurled back into that primitive state where the laws of battle are paramount, and he sinks his teeth into any hold that offers.

Beyond dispute, though, it is obvious that no man in this condition should have the care of women and children where constant danger is present. But so it is. The helpless woman or child who travels our street railways daily must depend, in cases of emergency, on the judgment, the coolness, and the steady nerve of a man who, if he ever possessed these qualities, has had them driven out of him, and is, in many cases, little short of a raving lunatic.

THE MAN IN THE AIR

PERSONAL EXPERIENCES OF MESSRS. WRIGHT, FARMAN, CURTISS, BALDWIN, AND OTHERS, AND EXPLANATIONS OF THE DIFFERENT KINDS OF AIRCRAFT—UNSOLVED PROBLEMS OF THE AIR

BY

FREDERICK TODD

WE HAD been talking, a group at the Aëro Club in New York, about Mr. Roy Knabenshue's thrilling ride on the frame of a dirigible balloon across New York a thousand feet above the pavements. We had just agreed enthusiastically that the air had been conquered as Captain T. S. Baldwin came in, the veteran of hundreds of ascensions, who always gets back to his starting point with dirigible balloons, and who later delivered to the Government the biggest airship ever seen in America. We asked him how he felt about the conquest of the air.

"What are my sensations when I get up there?" he replied. "I don't remember that I ever had any. I have had to keep too busy watching the motor, running back and forth on the frame to steer, swinging against its motion to keep from pitching, holding the balloon's head into the wind when I could, all the time keeping tight hold on the rudder ropes and watching aloft. It has hardly

reached the amusement stage with me yet. I have had some fine views and once or twice have sailed along in the sky so quietly that I began to think there was something pleasant about it besides the sport of fighting the wind. But I have not conquered the air yet. You never know one minute what is going to happen the next. Not that it is so dangerous. It is just that you have a lot of things to look after to keep it from becoming dangerous. I have sailed balloons with as much success as anybody, I think, but I am still pretty much at the mercy of the winds. I keep out of them when I see them coming. But sometimes, when I am going along with everything working right, of a sudden my balloon, with no apparent reason, shies about, points her nose off where I do not care to go, and takes me far out of my way. It has just been a stray wind, happening along. But don't think I am pessimistic. We are yet going to do exactly what we want."

This was before the Captain had put together his hundred-foot balloon for the army, and he had in mind the antics of smaller dirigibles. These he had sailed with success probably never exceeded by anybody else in the world, because, a veteran of the old round balloon and parachute jumping, square jawed and robust, but a quiet bundle of well controlled nerves, he has never taken a single chance that he was not fully warranted in taking. He built new balloons every year, to be sure of them, and looked to every piece of silk or wood and tried his engine thoroughly before he ever climbed aboard a balloon frame and gave the word to let go.

THE MAELSTROM OF THE AIR

Every man with whom I have talked who has been up into the air upon any kind of a flying-machine says the same thing about the turmoil of the air above the surface of the earth. It is incessantly moving, yet never moving along steadily. It goes by fits and starts, and it dearly loves to get into whirls. It waves along, in pulsations of heavy and light pressure, pushing first on one side of balloons when they speed, then on the other, making them pitch. The surface winds strike against houses, trees, fences, in their flow, and bound upward. The churning below is felt some distance above in billows that take a little balloon up and then let it down. Light aëroplanes feel a difference in the upward push of heated air rising from different fields, as when passing from a potato field to mown stubble.

Five hundred to a thousand feet up, within the zone of surface winds, breezes may be encountered flowing in different directions. Great masses of air that have been heated over fields are moving off to find room, or to make way for heavier masses of cold air that have been lying over lakes. The shadows of clouds floating aloft move like great stirring-rods through the air below, suddenly cooling and contracting it. The air expands with equal suddenness after the shadow has passed and, being of perfect elasticity and bounce, masses start into motion and move till they lose it. There may be upward currents, caused by hot air breaking through colder layers that have been holding it down. On stormy days we see from the ground something of the swirl of the low clouds, but on days that are clear only the man who takes an airship up knows how the winds weave aloft.

The little forty-foot dirigible balloons that nowadays appear at fairs, summer resorts, and pleasure parks for exhibition purposes are the most helpless of all aircraft when these winds are a bit too strong. They have so little "lift" that they can carry only small motors, and do not have the devices to keep them expanded taut. The wind overcomes the power of their propellers, gathers in pockets in the flabby silk, and carries them off their course. Then the motor often breaks down at the critical moment. Most expert aëronauts with small balloons have them just a little heavier than air, and by tilting the front of the balloon permit the propeller to draw it up at a slant. When the propeller stops, the balloon comes down. It is a sign of expertness to fly close to the ground, with this in mind. Sometimes the descent is a bit uncomfortable. Messrs. Charles K. Hamilton and Eugene Godet were aëronauts with a small dirigible balloon at Coney Island during the past summer. Hamilton was rescued from the water after having blown out to sea. He came down on account of the failure of his engine, and held on to the frame while the gas bag bounded along over the waves faster than rescuing tugs could follow. A launch coming from the opposite direction took the young aëronaut off. Mr. Godet had had a like experience at the Jamestown Exposition, when his balloon blew out over the water and

landed up against a United States battleship. Mr. Roy Knabenshue, attempting to fly from Cincinnati to Cleveland on a small dirigible balloon, gave up in despair when he descended upon the roof of a railroad station only a few miles from home.

Messrs. Hamilton and Godet are young fellows. They are enthusiastic about ballooning but never go up when they see a wind blowing. They watch flags and tall chimneys for unruly winds, and wait till sundown to fly. But they speak of the fun of trying to make the balloon do their bidding and say they do not see why wealthy young fellows do not take to it for sport. Little dirigible balloons do not cost much to build, between three and six thousand dollars, with a good motor. But they are something like the automobile in operating expenses. They need constant repairs, frequent deflations are necessary, and it costs to refill them.

THE UNITED STATES WAR BALLOON

When it comes to the war balloon that Captain Baldwin constructed, the smaller craft are far outclassed. It is twice as long and thick, and has therefore eight times the cubic contents and eight times the power to lift. But it presents only four times as much surface to the power of the winds. It carries a better and more powerful motor. The fabric of the aërostat is double silk with rubber between, leaking only 3 per cent. a day. The frame is beautifully shaped and strong. The airship carries two men. It is guided uphill and down by box planes. The gas bag can be kept rigidly distended, to prevent "swashing," the making of pockets by the wind, and possible crumpling. This hundred-foot balloon has speeded twenty-four miles an hour and is probably the best behaved airship of its size in the world.

THE "LEBAUDY" TYPE

But if you should stand in the pit of the steel-trussed balloon house in which France's 328-foot military airship *La République* is moored, and look up at its beautifully shaped underbody, with the lines of a cup defender, rounding downward to its flat bottom (for the frame is covered with fabric), you would see what size means to an airship. A ballonet inside the balloon, communicating with the car by a tube, is blown out with air at such pressure that it keeps the gas always pressing against the silk sides, so that the sharp-pointed bag is given the rigidity of sheet steel, and you could make no impression upon it with your cane. The car, big enough for a dozen men and instruments, hangs below. This airship is the substantiation of an ideal of graceful bigness.

THE "ZEPPELIN"

And Count Zeppelin's airship showed what a builder can do with the fast increasing buoyancy that size gives him. The Zeppelin ship was a great cylindrical framework of aluminum, bluntly pointed at the ends, and covered with linoleum. Inside, a row of ordinary round balloons were inflated. He needed no ballonets, because these balloons, in shelter, did not expand and contract quickly, and did not especially need rigidity. He suspended his gondolas close underneath the hulk, and had his motors and propellers well up at the sides, so that they pushed right in the line the bullet-shaped body had to travel. He had studied out by long experiment the most suitable rudders and planes, and by just balancing his airship in the air he went where he pleased. His twelve hour trip over the mountains of the German-Swiss frontier was a wonderful achievement.

THE WRECKS OF THE BIG AIRSHIPS

But the history of aërial navigation has already told of the wreck of both a Lebaudy airship and a Zeppelin. The great *La Patrie*, one gray afternoon in October, 1907, was caught in a storm while moored on the ground. A hundred soldiers were holding the long ropes that hung from her rounding sides, far above. The wind caught the big bag, and the airship rolled and bounded. Carried, some of them, thirty feet into the air, and liable to be dragged into the sky hanging to a little rope, the soldiers all let go, and in a trice the beautiful ship disappeared. Only a fragment of a propeller, found in Ireland, ever told of the way she took.

And men who lived with balloons had been wondering how Count Zeppelin would manage when he had to bring his big airship to dry land, when the catastrophe to it was cabled around the world. It was probably the best thing that could have happened in the end. For while the wind may have done some of the wreckage, it is plain that the leakage of gas, mingled with air inside the aluminum cylinder,

a powerful explosive ready for a spark of any kind, wrought the most havoc. The wreck of *Zeppelin IV* meant nothing as to the merits of the great airship. It will be replaced with more of the same kind, all over the world.

It is interesting to know that both these great airships might have been saved if they had been high in air. The engineer of the Zeppelin tried hard to send his ship aloft when the storm broke. Mr. Eugene Godet says that one man in the car of *La Patrie* could have brought her back safe. The vicinity of *terra firma* is as dangerous to an airship in time of storm as to a sailing vessel nearing the breakers.

WEATHER SCIENCE AND AERIAL NAVIGATION

With the coming of long sky voyages on airships like that of Zeppelin, the jumble of rules that balloon pilots have known for a long time concerning weather predictions and the finding of favorable winds is combining with the scientific discoveries of weather experts to form a new science of aërial navigation. The United States Weather Bureau has been conducting a systematic observation of the heights of the atmosphere at Mount Weather, Virginia. The experts have confirmed much that has previously been believed about the winds of the altitudes. There is room for only a mention of some of the things they tell aëronauts. They have found a zone of air, seven miles above the earth, extending around the globe and continuing at a warm temperature. This is probably in a state of restful drift, excepting when some meteor shoots through. Clouds that ever rise so high cannot penetrate it, but mushroom against its bottom. Below this is the long-discussed eastward wind that flows on an average six hundred miles a day, faster in winter, slower in summer, unaffected by the lower winds. Then come the shifting air currents of temporary or periodical duration. It has been established that these shift with altitude, turning generally to the left, but contrary winds often push through between the layers and, being colder or warmer, throw up mists and billowy clouds. Warm, moist currents, ascending, form the wool-sack cumulus. Winds blow away from the black clouds of local thunderstorms, which are preceded by a vertical roll of wind.

The Wright brothers, studying soaring flight, have satisfied themselves that most sharp gusts are little whirlwinds, funnel shaped, and leaning atop the way they are going; miniature tornadoes, probably set awhirl by the tipping over of a structure of air when a light, warm layer next the earth has slowly lifted a heavy cold mass, and balance is suddenly lost. From much scattered information of this kind, enthusiastic aëronauts are already trying to construct a science that will tell them how to read the mists and the clouds, and to detect in the gradations of the blue haze how winds at a distance are blowing, so that they may find their way into favorable currents and avoid troublesome gales.

A GROUP OF AERONAUTS

About two hours' ride from Niagara Falls, in New York, is long, narrow Lake Keuka, set deep within a cup of hills, upon the sides of which mile after mile of vineyards extend. French grapegrowers and Germans have settled here in colonies, and while many a New Yorker enjoys with the critical satisfaction of a connoisseur the bouquet of imported champagne from Hammondsport, others who love Rhine wines have like delight. In the little village graveyard lies one of the Wises, who in the middle of the last century astonished the world with their big balloons. And, while wine-making has given Hammondsport prosperity, the inhabitants are most proud of the return to aëronautics that has made it an aëronautical centre.

It is all because a quiet, unassuming young fellow of the village found his bicycle repair shop growing unprofitable and started to build motor cycles in the barn on his mother's farm and built so well that he rode a mile in the fastest speed ever traveled by a man over the ground — 136 miles an hour — on one of them that now hangs in his garage. This was Mr. Glenn H. Curtiss, who rode the *June Bug* when it won the first American trophy for aëroplane flight in public. First, Captain T. S. Baldwin, and later, Dr. Alexander Graham Bell discovered him and started him building aërial motors and flying-machines. Dr. Bell made Hammondsport his home during the winter, as other inventors are doing. The War Department detailed Lieutenant T. E. Selfridge to stay at Hammondsport while studying aërial navigation, and then the Aërial Experiment Association was formed.

Go to Hammondsport while Dr. Bell is not away at his Nova Scotia laboratory, climb the hill to the noisy Curtiss shops, and visit the association at Mr. Curtiss's house. Better go

in the afternoon, about three, for Dr. Bell holds firmly with Mark Twain on the subject of the proper hour of rising. With Lieutenant Selfridge working steadily in one corner of the big room they make their headquarters, collating abstruse figures out of technical papers in all languages, and only joining in the talk at intervals; with Mr. F. W. Baldwin, formerly "Casey" Baldwin, the Canadian athlete and football strategist, now aërial engineer, giving an occasional start to the conversation in a new line; with Mr. J. A. D. McCurdy, who rides through Hammondsport at breakneck speed on a motorcycle and appears frequently on crutches, being young, busy in and out; and with Mr. Curtiss happening in on his rounds of the shops, Dr. Bell will smoke his pipes in relays, first his big meerschaum, then his briar, and finally his favorite cob, reclining on a couch, and tell you with enthusiasm that between the big airships and the aëroplanes his young associates are trying, and his own tetrahedral structure that he believes will be of great value in a particular field, we will soon have aërial travel everywhere.

And the stack of thick books in the corner must not be forgotten. They show what scientists have been thinking about flying-machines while the general public took them for the foolish dreams of inventors. They also show that these scientists do not believe alike, by any means, about the things they write. They talk about air wedges in front of moving bodies, and aërial viscosity, and the thin film of air that covers everything and makes friction small, affirming and denying, and making it all clear with pages of mathematical equations and Greek letters. The Aërial Association is making what it can out of these, but mostly it relies upon Dr. A. F. Zahm, of Washington, the foremost American authority on the dynamics of the air, and it builds its aëroplanes with his sharp edged, curved shapes, and very light materials, for buoyancy and speed.

JUST HOW TO FLY

The *June Bug* was a tight, strong, airy structure of wood, wire, and muslin when it was taken out to the little race track two miles from Hammondsport on Saturday evening, June 20th. Mr. Curtiss speeded it three times without its rising in the air. It was discovered that the muslin of the wings let the air through. So an automobile was hurried off to a nearby city during the night, and next day the wings were painted with hot paraffin. Sunday evening it flew a quarter of a mile, and later it won the trophy for the mile flight in public. Mr. Curtiss kept on making occasional flights as he found time, nearly always in the evening at sundown, when the winds are lightest.

"Mr. Selfridge thinks that *June Bug* could make the flight at Fort Myer if we were only skilful enough at flying," said Mr. Curtiss to me. "But we are going to build another aëroplane with the improvements that we have learned in the flying we have done. I am still only a beginner, but flying is easy to learn, and I know I could pick it up quickly if my business left me time enough to fly frequently. I have learned not to try to rise too sharply, because I can make the flights longer by making the ascent gradual. I can turn in two ways, either by 'sloughing' around or tilting up the wings with the balancing planes. The machine flies steadier just a few feet from the ground than it does twenty feet up, where I usually fly. There is one spot where the *June Bug* always wants to rise. Mr. Herring watched it and thought it was pushed up by a current that flows down the hillside and takes an upshoot in a little cup in the ground. Others thought it was caused by the gyroscopic action of the propeller. When I fly across from the potato patch to the stubble field in the valley I can feel the difference in the upward push of the air. Sometimes when one wing goes through the shadow of a certain big tree it sinks. But my tilting planes make the machine balance just as I direct it.

"I have never had any dives. When I want to come down I let the machine swoop with the power on, then make it give a little jump as the wheels touch. This uses up the momentum and the *Bug* does not go far on her wheels. I have not flown in winds of any kind to speak of yet. Our speed has been about forty miles an hour.

"Our wheel steering-gear is just what a man who runs an automobile would learn quickest. We think that the aëroplane is going to be flown most by young fellows who own automobiles, for sport, and have designed the controls as near like those on a motor car as we could."

The new aëroplane of the Experiment Association will have two propellers, and a second flat guide-plane that can be tilted at the back, as well as in front. The fabric of

the wings will be rubber-silk, taking Dr. A. F. Zahm's statement that these surfaces are covered by a thin film of air upon which other air slides, and that all fairly smooth surfaces offer the same friction to the outside air. Lieutenant Selfridge flew in the *June Bug* late in July, as did Dr. McCurdy.

MR. FARMAN AND HIS AEROPLANE

"I have done some flying," said Mr. Henri Farman, the French aviator, when he brought his aëroplane to New York and began to make exhibition flights, "but I do not try to do what your inventors must do at Fort Myer. I never fly in winds. Once I had a spill in France when I attempted it. The dihedral angle of my aëroplane makes it balance automatically, and it also tilts up in going around a curve because of this angle and the faster motion of the outside of the wing.

"In flying at Issy I had some of the curious experiences that Mr. Curtiss got in flying across different kinds of ground. There is one spot there that looks just like the rest, but in flying over it sometimes I can feel the machine lift, at others sink. I guess there must be something different below the surface."

Mr. Farman was a professional automobile racer before he started aviation. His machine was built by the Voisin brothers in France, and is a beautiful structure with automobile finish. It has none of the wing-twisting apparatus or tilting planes that the American machines have.

THE WORK OF THE WRIGHTS

One morning in the summer I pushed open the front door of a little two-story store building on West Third Street, in Dayton, O., and came directly upon a big structure of white canvas, aluminum-painted wood, and thick heavy wires, part of the aëroplane of the Messrs. Wright. There had been much said to me about the secrecy of the two young men in Dayton; but nobody was in sight. Stepping about noisily did not bring anybody. So I went to a side door from which I saw an elderly gentleman go, and there met Mr. Orville Wright, who had invited me by letter to come any evening after six and talk about flying, his time being taken up with work on the Government flying-machine during work hours. I told him that I had called for just a moment to make an engagement. "All right," he replied, "come to my house at seven." And then he took me first to look at the machine I had seen, and afterward, in the little office upstairs, talked for three hours about experiments in aërodynamics.

I had gone to Dayton with the idea that Mr. Wright and his brother were two skilful mechanics who had got a little scientific information from Mr. Chanute and had then blundered ahead to a kind of success by grace of mechanical expertness got in making bicycles. But Mr. Wright told me about the painstaking and highly scientific experiments his brother and he conducted, the results of which first astonished and then delighted Mr. Chanute, who is still their aëronautical godfather. He showed me some of the apparatus — little curved pieces of brass of different sizes and shapes which they put into a delicate balance in a long tube through which steady currents of air are blown, changing angles and speeds of air, noting everything down, and then studying the mass of figures. They perfected their apparatus till it gave them identical results as often as they repeated an experiment (a thing that pioneer experimenters did not succeed in doing) and learned so much from comparing figures that they can now plot the shape of a surface to do something they want and after testing it find it does exactly what they designed.

Many of the European scientists who have written thick books about how air acts have reasoned it all out in advance with equations containing plenty of Greek letters, assuming that air acts just as the fluid water does. The unassuming brothers in Dayton first found out how the air really acts by experimental apparatus. They have satisfied themselves that air behaves differently from water, having no cohesion. Their actual tests with objects have convinced them of some astonishingly curious things that they give an inkling of in confidence, but are not yet ready to make public.

We took another look at the unfinished portion of the flyer on the way out. It blocked the little storeroom. The two immense wing-planes, six feet fore-and-aft, were of white canvas stretched on frames having front ribs of big, thick timbers. They had a decided curve, and the rear edges were fluted, held in shape by bent wires. A heavy engine-base was fastened to the lower wing at the right, with the peculiar radiator for cooling it attached to one of the uprights that held the canopy-like upper wing. The seat for two persons which balances the engine, just a bit away from the middle on

the left side, had not yet been placed, nor the levers in front of it. The thickness of the aluminized wood uprights holding the upper plane was noticeable. They seemed to be ordinary pieces of board slightly rounded at the corners.

The lower plane was set low across skids, which bent up at the front like sleigh runners and were strongly braced by other timbers and thick wires to hold firm the front guide-plane. This will have a little vertical plane attached. The rudder, like a box-kite set edgewise to turn on hinges, was at the rear. The sprocket wheels for the propellers were in place, behind. The two outer sections of the double-decked wings, which warp in opposite directions to make the machine tilt or come level in flight, were not yet attached. The machine looked about as airy as a two-horse truck with a tarpaulin over it, but every shape, every measurement, had been figured out with exactness to give lift in the air, and to speed through it with least resistance. Many of the curiosities of the air that the Wright brothers discovered in their experiments are evidenced in the flying of this aëroplane. Every oddity of shape has some meaning, for the Messrs. Wright know a few things that they have not put into their patent applications.

"We are making this Government machine as a heavy knockabout," said Mr. Wright. "We are using pieces we have made up in some quantity and are not trying to earn the premium offered for speed. The men who learn to fly will give it some hard knocks. But any carpenter can repair it. We could take off much weight by just planing down these wooden strips. But we believe in strong, heavy machines for ordinary use. We can build a light machine for great speed if the occasion arises."

We talked again at the Wright home on Hawthorne Street in the evening. There, in a charming home circle of which the two brother inventors are a part, I saw the culture that no doubt made a good foundation for their work. Their father, a clergyman prominent in church administration, joined with interest in our conversation. Mr. Orville Wright showed as much interest in a local tangle of public school politics, in Mr. Taft's campaign, and in the national issues, as he did in the progress of aviation. Then he told me an interesting story of their dealings with the foreign governments, denying the stories about exorbitant demands made by them, narrated how some foreign customs officers, with busy patriotism, took their flying machine apart and made complete measurements, and how Mr. Wilbur Wright's flight in France was delayed because his workmen had failed to ship a box of little bolts, which the French hardware shops could not come near duplicating. When we got to the description of his flights he showed me a complete record in splendid photographs of their trials with gliders and motor-driven machines, learning how to fly and how to improve their machine as they progressed. I am going to tell the story as he told it, but condensing the conversation, much of which was given in reply to questions, into a continuous interview, some of which may not be in Mr. Wright's exact words, but true to what he said.

HOW THE WRIGHTS LEARNED TO FLY

"They have called us secretive," Mr. Wright began with a smile. "We have made many practice flights out at Simms and often we had people stop in wagons and automobiles to watch us. Then we published what we were doing in the aeronautical journals, and nearly everything we had was on record at the Patent Office. Of course there were certain men we did not care to have watch us too closely and when we suspected that experts were on hand we stopped flying. It costs too much to be continually patenting things as we try them out.

"But we never cared about the general public. We invited the local newspapers to watch us, asking only that cameras be barred. We got off for a long time without much notice because the public did not seem to know the difference between dirigible balloons and aeroplanes. They were both called airships. And with Santos Dumont staying up for half an hour in his balloon and two young bicycle makers in Dayton only a few minutes, the home news did n't attract. And, even when we went down to Kitty Hawk and the newspapers got after us, we did not refuse to fly because the reporters came to us. They never came. They took it for granted and watched us from trees. We knew that they were there, for we saw them.

"Our first work, with gliders, showed us only the principles of support and balancing. We learned about shaping the planes and then, for the first time, we put the thick front rib on our wings. Mr. Chanute could hardly believe when he saw how it worked. We learned something about balancing, and in

rivalry with the buzzards we tried soaring. Our wings proved better than theirs. We could soar on lighter upcurrents on the hills than they. But we have found since that the power-driven machine is entirely different from the glider. We had to unlearn some of the skill we had got in gliding after we began to fly. We have had to unlearn about as much as we learned. Gliders will not be used in learning to fly the perfected machines. But we may some time build a glider with the right curves for soaring as a sport.

"Since we put an engine on our machine we have been improving it, point by point, as we found out how, in flying. When we started out we determined to work for a flyer that could go out in ordinary winds, and one that would be hard to smash up. The dihedral angle gives automatic balance in still air, but it makes the flyer tip over in winds. We think it is dangerous, and turn our wings down a little. Our flyer is balanced in the air by twisting or warping the outer ends of the planes.

"We learned how to balance with these, but we had trouble with unexpected dives, downward and sidewise. The first submarines had the same trouble. We have flown and flown till we hunted out the reasons for these things and found out how to modify the machine to prevent them. Some were caused by our not knowing at first how to use the warping device. Little differences of angle given to planes cutting into the air make great differences in their action. Sometimes we got the reverse of what we expected. We learned to make the rudder work in unison, and avoided some of the difficulty. Then we learned some other little things. We think our machine is now steady and safe, but we have other ideas that we will keep on working over.

"There is undoubtedly much in the personal factor in steady flying, but it seems that there is more in the machine. This is shown by the fact that my brother and I have learned every new machine, as we changed it, with equal quickness. It would be impossible for two men to be exactly alike in acquiring skill; it must be the machine.

"The most marked incident that I remember showing the personal factor was the accident my brother had at Kitty Hawk, when he pushed his levers the wrong way and fell, damaging the machine so that we thought best to try no more flying in the few days we had. He was preoccupied and used the movements of an old system instead of new ones that we had just adopted. Anybody who learns to fly must be able to exercise reasonably quick and good judgment. But the use of the levers and the feeling of one's way in flying soon become a habit. We think that we mastered our flyer in a shorter time than we learned to ride the bicycle.

"We have had our mishaps in perfecting the machine. Twice I had falls that might have been serious. Once the flyer dived, threw me out, and then turned a somersault over me. The big front rib of the upper plane would have struck my head or back if it had not been broken, in some unaccountable way, just in the right place to save me.

"We have not put wheels on our flyer because there are really few places smooth enough for the flying-machine to get a running start. We think that when these machines become more common they will be launched by apparatus. On battleships, the practice may be to turn the vessel into the wind and put on full steam ahead so that the flyer will lift without moving forward on the deck. As we start a flight now, we have a short piece of single track along which the machine runs in a little truck, the propellers furnishing the power. We balance with the wings, just as we do in air. When the machine has enough speed its planes lift it and we fly off.

"We balance in air by warping the wings, just as a bird bends the ends of its wings. Our aëroplane does not swerve from side to side to any noticeable degree, excepting as the use of the warping device in changing breezes may make it do so. You are right about the air being like a maëlstrom, but after one has got familiar with the levers there is not so much work as to make it tiring. Since we found out how to use the rudder in connection with the warping of the wings we have much less work to do.

"When we turn, we either move the rudder, which will guide us around without sloughing since we have the vertical plane in front, or we can warp the wings and throw the machine up at an angle. We usually do the latter, to make the circle quicker. We can make our flyer turn in a circle proportionate to its size, as compared with any bird's. Birds wheel in circles proportionate to their sizes. But there is one thing to remember about circling. There is so much more resistance offered to the machine while it is turning that it loses

speed and may sink if one attempts to turn too short. I think that we can now turn in about seven hundred feet. By getting up high and circling in a descending spiral we can turn quickly without losing momentum. But aëroplanes will never fly in the streets of a city. They are too wide from tip to tip, and they cannot turn corners.

"We believe in our system of lever control. We formerly used the device that is moved by leaning over to one side or the other. But we think we have improved upon that. Moving levers is a more natural motion than turning a wheel. We use three levers. The left hand controls the front plane and makes the machine climb or point downward. The other two levers are usually worked together in the right hand, to warp the wings and move the tail rudder. But one may be pushed out of the way and either used separately. Our engine controls are within touch. One reason for discarding the old method of twisting the planes was that we do not think it advisable to lean. When a flying machine circles and tilts up, everything aboard keeps its steady position if the turn is properly made. A bottle ought to keep on its bottom and not tip over. The man at the levers should not lean, except as the machine leans.

"When a flyer goes with the wind it adds the wind's speed to its own. When it flies against the wind its progress over the ground is equal to the difference between them. The aëroplane can be made to hover for a few moments over one spot when its speed is just equal to the wind's. I have even seen birds going backward, flying as hard as they could. But going backward in a flying-machine is uncomfortable because of the dangerous possibilities of landing backward.

"Flying across a wind the machine goes obliquely, as seen from the ground. I remember taking a friend on a trial flight during which we had to cross the wind. He looked down and saw the ground sliding sidewise under him and got so nervous over it that he jumped up and clung to the uprights of the flyer. But a flying-machine acts just as a bird does in this regard. It points along the resultant between the wind's speed and its own The air comes direct into one's face, excepting for momentary gusts and on quick turns. It always flows directly back along a bird's body, from beak to tail. I have seen birds fly nearly sidewise across winds, pointing with one wing in the way they were going. All airships must fly obliquely in the same way. There are no breezes coming over the rail as in boats.

"When we want to make the flyer climb into the air we guide it up at a gentle incline. It takes much more power to lift than to fly level. Making it climb too steep a hill uses up all the momentum it has got and the motor cannot give enough power to keep up speed. The flying machine sinks. Sometimes it can swoop and regain its momentum after just grazing the earth. We find that the best way to alight, as a general thing, is to shut off the power and let the flyer glide to earth. We do not feel the shock of stopping, nor when the runners touch the ground. Sometimes we throw up the front plane as a brake. There are times when it is best to alight with propellers going, but ours come so near the ground that a blade of one might be broken off by something projecting a little way."

Mr. Wright illustrated much that he said with his photographs. Those of late flights were of great beauty and interest. One showed the big mechanical bird just grazing the ground with one wing-end, as a gull skims the water. Others, taken from above, pictured it with wings atwist, giving it an appearance of life and of swift motion that artists will hereafter seize upon.

Right here belongs the telling of one incident of flight given by Mr. Wright. He was flying with one of the earlier machines when it took a sudden dart for a thorn tree. To save himself he gave the wings their ultimate twist and wheeled downward, expecting to land. A wing-end just grazed the tree, and brought away with it a branch with thorns that had stuck in the canvas. "Before we reached ground," said Mr. Wright, "I found that we could clear it. So we rose after the swoop and flew back home with the branch still hanging at the end of the plane."

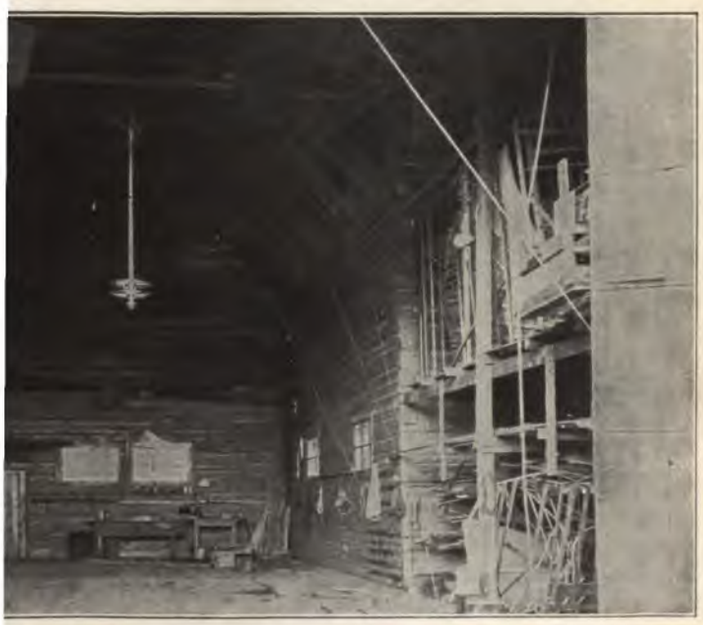
The Messrs. Wright are now planning experiments with a device for balancing the flyer automatically in gusts.

MYSTERIOUS MR. HERRING

The mystery of the little group of aëroplane inventors who have had more or less success, and of the aëronauts who have been watching the making of the flying-machine, has been Mr. A. M. Herring, whose little workshop in the top of a tall Broadway building was going day and night during the summer, getting

RING GEAR OF THE "JUNE BUG"

the rudder; he pushes it, with the shaft, forward to point its front guide-
he aëroplane upward; with his shoulders held in the semicircle of tubing
balance in air by leaning to one side or the other



XPERIMENT ASSOCIATION AT HAMMONDSPORT, N. Y.

Alexander Graham Bell's tetrahedral kites, the screws of the Williams
a "flap-wing" flying machine hang about the spacious balloon house

Photograph by The Pictorial News Co., N. Y.

FITTING THE UP-AND-DOWN STEERING PLANES OF THE UNITED STATES WAR BALLOON

ready the aëroplane that he contracted to deliver and fly at Fort Myer. That Mr. Herring, who had been associated with Mr. Octave Chanute and Professor Langley, and for a short time with the brothers Wright, knows much of the craft was plain to all who talked with him. His conversation gave hints of long flights in the little, delicately constructed thing with silk wings that his friends had him tell them about, piecemeal. Its two little engines, said to have been turned out on precision lathes used by clockmakers, and giving the utmost possible power for every ounce of weight, were the talk of the Aëro Club.

It was said that Mr. Herring had managed to escape observation in twenty-mile flights by shipping his portable flyer in a big trunk to ignorant fishermen at out of the way spots along the seacoast. He told me so many things about flying that have paralleled the experience of others that it was plain that he had been up on wings.

But he allowed nobody to see his machine, nor would he describe it exactly. Just before he was to deliver the aëroplane to the Army, one of his engines broke down in a test and it was a guess whether he could fill his contract. Experts in aëronautics declared that Mr. Herring could certainly do his part if time were given him, but so little was known that nobody

CAPTAIN T. S. BALDWIN ON THE FRAME OF THE UNITED STATES WAR BALLOON

Making preliminary flights at Fort Myer, Va., to test the dirigible balloon before its final trials and delivery to the Government

Photograph by The Pictorial News Co., N. Y.

THE GOVERNMENT AIRSHIP FLYING HIGH

THE FRENCH WAR BALLOON "LA RÉPUBLIQUE"

SOLDIERS WARPING "LA RÉPUBLIQUE" INTO THE BALLOON HOUSE

Note the impressive size of the airship, the yacht-lines of the underbody, and the shipshapeness of the car

would hazard more than the statement that if Mr. Herring did fly, with his gauzy wings and his automatic balancing mechanism, his aëroplane and its flight would be the wonder of the year.

AEROPLANES TO ORDER

There are signs enough that the different groups of aëroplane inventors are getting ready to build them for sale, and already there is rivalry and some little evidence of personal feeling among them. The courts will probably be called upon to settle many-sided patent litigation. Next summer anybody may have an aëroplane who can spend from $2,500 to $5,000 for one, and the comparative merits of the heavy Wright machine, with its levers, the lighter Hammondsport product, whose wheel gear is more familiar to automobilists, and the much smaller Herring machine may be the subject of animated conversation on country club piazzas, between the more adventurous young fellows who have room on their estates to fly and are trying the flyers for sport.

Photograph by The Pictorial News Co., N. Y.

THE NOSE OF THE UNITED STATES WAR BALLOON

THE GERMAN AIRSHIP OF WAR, "ZEPPELIN IV"

Destroyed in a storm while moored at the ground on August 5th

Photographed for THE WORLD'S WORK by A. Radclyffe Dugmore

MR. CHARLES K. HAMILTON ON HIS DIRIGIBLE BALLOON

This is a typical fifty-foot dirigible balloon, without ballonett or planes, steered up and down by the movement of the aëronaut back and forward on the frame

Mr. Orville Wright announced at Fort Myer, Va., that the shop at Dayton, Ohio, is busy making the parts of a considerable number of aëroplanes which they have already contracted to deliver. A French firm of manufacturers has been making gas engines after the Wright designs for nearly a year, presumably to equip aëroplanes to be delivered to European buyers. Mr. Glenn H. Curtiss has advertised to build aëroplanes that will fly a mile. Mr. A. M. Herring has told his friends that he can begin the manufacture of highly-finished flying machines at once, machines with beautiful celluloid-silk wings that can be rolled up for packing in a trunk, and with the little steel parts all turned out to be interchangeable. When his engine broke down and he was allowed an extra month by the War Department in which to deliver his war aëroplane, it was believed that he was negotiating with Mr. Curtiss about merging the interests of his Broadway establishment and the Hammondsport shops, and there was even talk about Mr. Peter Cooper Hewitt joining issues, too. This shows that the modern business idea of combination has already shown itself in the flying machine world. Indeed, it has already been predicted that all the aëroplane inventors will find it advantageous to combine. There are some difficulties in the way of this. And it is not publicly known what financial interests are behind the enterprise of the brothers Wright.

PREPARING TO TEACH BEGINNERS

Elaborate plans are already made for teaching beginners how to fly. Mr. Herring has designed a captive aëroplane, a machine that must be handled just as an aëroplane in free flight is managed in order to make it rise and balance. He has stated confidently that any reasonably skilful man or woman may easily learn how to fly straight ahead in quiet air in a few hours in this apparatus. The beginner will acquire "good form" in this elementary practice. Later he will learn to circle, and gradually will gain expertness till he can attempt moderate breezes and flights over trees.

Mr. Orville Wright expects to teach those who buy his aëroplanes by having an instructor take them out on a heavy, slow machine at first — the two-passenger aëroplane being the regular one sold and used in practice. After trial spins in which the beginner will learn by observing, the instructor will attach duplicate levers. The new aviator will be taught full control little by little. Nearly the same system is contemplated by Mr. Curtiss, but the Hammondsport inventor will put the beginner on a machine alone and have him make short "jumps" till he can steady himself in flight. The Hammondsport machines will probably be equipped with detachable tails, that will give stability in the "fledging" period and can be removed when the aviator becomes expert and desires to make speed.

Dirigible balloons too, or "motor balloons," as they are coming to be called, may be had by any enthusiast with money to buy. Captain T. S. Baldwin, who built the war-balloon tested at Fort Myer, is getting ready to build more for general sale. A fully equipped craft built for two, with a good engine, double silk and rubber aërostat, ballonet, and a comfortable wicker car, can be had for $7,000. At the Government test the Baldwin balloon "failed" in its first speed test. The engine stopped because an electric wire had shaken loose. The watchers at Fort Myer saw it circle in air over the Virginia woods two miles away. Down dropped the anchor and the wriggling cable. Then the war craft sank on even keel till it was hidden by tree tops. Cavalrymen set off at a gallop and hundreds of sightseers followed, expecting to see the wreck of the balloon. They found that the aëronaut had guided it into the corn patch of a Negro's little homestead, just big enough to hold it. They hardly reached the spot before the balloon was up and away again. The "failure" had been the most beautiful bit of balloon management ever seen.

And when, on the two-hour endurance test, the silver-gray airship sailed forth and back, forth and back, sometimes carried off its course by the wind, but always coming back true, continually on even keel, without a pitch, till finally, in the dark of a moonless night it was brought down in the parade ground at Fort Myer and carefully led into its tent, Captain Baldwin reversed his former opinion of motor-ballooning.

"There was some work," he said, "but it would have been pleasure if there had not been so much at stake. With a man to help, to watch the engine and share control, the skipper has time to enjoy things. With a two-man dirigible motor ballooning is the king of sports."

FIFTY YEARS OF AN AMERICAN COMMONWEALTH

THE DEVELOPMENT OF THE UNDREAMED OF WEALTH OF MINNESOTA AND THE MAKING OF STURDY AMERICANS OUT OF NEWCOMERS

BY

GOVERNOR JOHN A. JOHNSON AND W. B. CHAMBERLAIN

MINNESOTA is now fifty years old. The half-century that has just turned has been significant of what sturdy, honest, well-disposed folk of humble beginnings make of a commonwealth when they are spurred on by the stimulus of American ideals; and just as significant of what those ideals make of the folk who appreciate them. To know what has been wrought in Minnesota it is necessary to see the life of a pioneer of 1858 — the simple roughness of life on the fringe of civilization, reduced to its lowest terms — and then see the wholesome culture of Minnesota's thrifty people to-day.

When the commonwealth came into the union fifty years ago there was not a mile of railway nor a telegraph line in the state. The life of the pioneer was a problem of wresting what he must have from the soil and the forest and the waters by sheer muscular toil. Game, fish, and wild fruits eked out the scanty fare in the scattered log-cabins. The wilderness had barely been touched. Along the banks of the Mississippi and the Minnesota a string of little villages had sprung up. St Paul and Minneapolis were busy young markets for Indian trading and lumber. What is now the most productive wheat-growing region of the world was uninhabited except for a little settlement at Pembina. Of the five great industries in which Minnesota has gained leadership — lumbering, wheat-growing, flour-making, dairying, and iron-ore production — its people upon the assumption of statehood had made a start in but one, lumbering, and that the most transitory. Settlers had only just begun to pour into the new land. The panic of 1857 had laid its blight upon the frontier. Real money was scarce.

The Civil War came, and the new state did its duty to the nation. When President Lincoln called for volunteers, Governor Ramsey offered a thousand men and the gallant First Minnesota afterward rivaled at Gettysburg the Light Brigade. Before the War was over, Minnesota sent to the front a tenth of its entire population — a larger proportion than was sent by any other state of the North. Meanwhile a bloody Indian outbreak at home called for some volunteers and more heroic sacrifices. It was in 1862, while the military posts were all but stripped of garrisons and most of the able-bodied men were gone, that the murderous Sioux broke out. There was no breath of warning. More than eight hundred settlers suffered death in awful forms before citizen soldiery could be organized and sent to their rescue. The Sioux nation was banished utterly from Minnesota.

THE SCANDINAVIAN IMMIGRANT

When peace returned the new state grew apace. Settlers flocked to it from every part of the union, especially from Maine and the adjoining New England states. There was a considerable French element in the early population. The Germans, who had colonized extensively in Wisconsin, soon began to come in, to found communities, and to take up whole regions of rich land.

But the immigrant that sought out Minnesota in the early days in greatest numbers, and so became the most important foreign element, was the Scandinavian. From Sweden and Norway the stream of immigration has since that day continued to flow. Denmark has furnished a small contribution, and so has Iceland. Of late years, too, the Finlanders have come to the iron-range country in large numbers. But the sturdy Swede and the energetic Norwegian have literally come in

and possessed the land. To-day more than two-thirds of the population of Minnesota is of foreign parentage, and by far the largest of that fraction is Scandinavian, with the Germans standing next.

The causes that have led so many Scandinavians to forsake their native land are not altogether clear. Overpopulation, irksome social and political conditions, and unproductiveness of the land are among them. But undoubtedly the motives operating in the last century were identical with those that sent out their forbears, the vikings — the desire to ameliorate their condition and the spirit of adventure that is bred in the Northman's bones. The Scandinavian immigrants were exactly the sort needed for carrying the development of Minnesota forward at a rapid pace. They found a bracing, invigorating climate, like that of their native land; they found fertile lands of boundless area, to be had without price other than that which patient toil could pay; they found a people to whom ethnically they were more nearly related than any other branch of the Teutonic race, and whose language touched their own at so many points that it was easily acquired; they found political institutions bearing a close family resemblance to their own and entirely to their liking. In short, Minnesota suited the Scandinavian immigrants as well as they suited Minnesota.

THE MIGRATION OF WHOLE COMMUNITIES

True to their racial instinct, they turned to land-ownership and agricultural pursuits. They took up farms so generally that whole townships and counties were settled by men who had been neighbors across the ocean. One may to-day travel for miles through some parts of Minnesota without leaving Scandinavian territory. Not more than 25 per cent. of the Swedes, Norwegians, and Danes in America live in the cities. The census reports show that one in every four Scandinavians is a farmer, while only one in six Americans, one in seven Germans, and one in twelve Irishmen engage in agriculture. The Scandinavian influx was thus a tremendous factor in the winning of the wilderness in the Northwest.

But it was not alone in material wealth that Ole and Knute and Gustaf and Nels and their progeny brought blessings to the new state. They enriched and strengthened its citizenship with their native energy, their love of freedom, their habits of industry, perseverance, and frugality. They became Americans with remarkable facility. They planted schools and colleges and churches everywhere, for the Scandinavian nations have practically no illiterates among them. They took their part in the able, honest administration of local affairs, and they helped make wise laws for the commonwealth in legislative halls. They shed their blood freely and loyally for their adopted country, as was shown in many individual instances, but most strikingly in the Civil War record of that purely Scandinavian regiment, the Fifteenth Wisconsin.

The assimilability of the Scandinavian is to America his most valuable quality.

THE THIRD GENERATION

The third generation of American Scandinavians, now just coming into its heritage, exhibits the fine florescence that has resulted from transplanting a sturdy race into a land of opportunity. Some of the contrasts between the rising generation and that old generation to which it owes so much, are not merely striking — they are the outward evidence of the most significant and important element in American development. Take a concrete illustration:

The scene is a busy railway station of Minneapolis. It is June — the month of commencements and youth. There is a family group about to set forth for home. The centre of it is a singularly attractive girl, whose blond beauty betrays her northern origin, and whose academic gown and cap show that she was to-day graduated at the state university. Her flaxen hair and her tall and slender figure are racial characteristics. But she has besides a thousand and one marks of the hearty, healthy, happy American girl. These could never have been hers had her grandparents stayed in Sweden and lived the dull life that had been lived by their peasant forbears for a thousand years.

One of those grandparents is now in the family group — the old grandmother, her costume betraying her peasant origin. That old grandmother came to Minnesota fifty years and more ago. It was her labor, her endurance, her sturdy grasp of opportunity, along with her husband, now dead, that made this happy day possible for the granddaughter. Can you imagine the poor, one-room shack where she and her husband

started their new life in Minnesota, where they conquered the wilderness and won fertile acres as their booty, where years of toil brought their happiness and opportunity for the children?

One of those sons and his Swedish wife now form members of this typical family group, come to Minneapolis to take their daughter home in triumph. He is a country banker, steady, prosperous, and unpretentious. His clothing and his wife's are of good material, but of country cut. There is none of the urban polish on the surface of his sturdy solidity. He is of the second generation, quite American except in his features. At home he is the principal citizen of the town; perhaps he drives his automobile; he is chairman of the county political committee; he goes to represent his fellow citizens in state conventions; he has served in the legislature, and knows how to speak soberly and sensibly but with a sort of homely eloquence that goes straight to the mark. But in business and politics, in church and society, he betrays just a touch of that roughness, that almost crudeness, of the man who passed his youth in a pioneering community, and who cannot acquire the delicacy that culture has given his daughter. Sprung from the soil he cannot altogether escape the signs of his origin. Nor does he aspire to do so. But pride of achievement brings its own content.

WHAT AMERICA DID FOR THEM

Many such instances might be cited, wherein the changes in men and fortunes and in a whole people that Minnesota has made would be illustrated. This is what Minnesota stands for along with many other of our states of the Middle and Far West. Picture, if you can, what would have been the lot of that girl, growing up as a peasant maiden in Jemtland or Norrbotten. The difference between her cousin, let us say, who leads a pastoral life caring for cows in the fatherland, and this young American, with the widening vista of life that opens before her, measures exactly what the American West has done for its Scandinavian sons and daughters.

A rude shelter, with its mantle of snow and its cheerless environment of bare trees was the first home of Johannes Hult, Swedish immigrant of West Union, Carver County, where he and his wife began their New World battle. Here they reared about them a large family, now widely scattered. One of them, anglicizing his name to Andrew Holt, went to the city after gaining his education, became an honored member of the bar, and now dispenses justice from the bench of the Hennepin County district bench. In their American home is an interesting group of American children.

To that same West Union — a famous centre of Swedish immigration — came in the early days, from Ostergothland, the Wahlstroms, peasants, rugged and frank, eager to begin the new life. Among the children was an eight-year old lad who needed only the sunshine of American opportunity to bring him out. He became a leading educator among his people. For a quarter of a century he was at the head of Gustavus Adolphus College in Albert Lea, Minn. Now he is superintendent of perhaps the best equipped hospital in Chicago. Already the oldest among his half dozen children have distinguished themselves. A son, after winning a fellowship in Armour Institute and perfecting his technical education, has become superintendent in an important department of one of the great electrical appliance manufacturing companies. The oldest daughter, a conservatory graduate, has won high place among the musicians of her city.

These are but examples of many family histories that might be written in Minnesota, as in other states of the Middle West. The winning of the West has brought its rewards to the winners, and to their children's children. This is the most important fact underlying the history of the last half-century in the West. It is the achievement of the past that forms the inspiration of the future.

THE SCANDINAVIAN IN POLITICS

It was but natural, perhaps, that in the early days of their newfound citizenship the newcomers should have been rather clannish in politics and religion, nor have they entirely eradicated that tendency yet. But an appeal to nationality among them is becoming less and less efficacious. The second and third generations are as thoroughly American in language, manners, sympathies, and ideals as any element in our population. The Fatherland is to them a remote and almost mythical country, lost in a far-away of romance.

From the first, most of the men of Scandinavian descent in Minnesota have been Republicans. This was but natural, since the early comers were inclined by their love of freedom to that party which championed the abolition of slavery, and since the later comers inevitably gravitated to the party in which they found their predecessors and which was in power. The Scandinavians have a natural taste for politics. This is especially true of the Norwegians, the advanced development and democracy of whose institutions at home have given them a facility in public affairs quite equal to that of the Irishmen, though in a different form. It is this bent of the Norwegians that has enabled them to make the most of their position, and to send one of their nationality to the United States Senate and a number to the lower house. The clannishness which long assured their almost solid vote to the Republican party at the same time permitted their leaders to come very near ruling its policies and its destinies in Minnesota. But the general unsettling of political affiliations about 1886 broke up the Scandinavian solidarity to some extent, and, though still largely Republican in sentiment, especially on national issues, they are more and more inclined to independence of thought and action.

Minnesota has, in fact, been peculiarly fortunate in the character of its immigrants. Swedes, Norwegians, Germans, Canadians, Englishmen, Irishmen — all these are assimilated with great readiness to the American type. The hordes from the south of Europe, who are of an alien breed, have not sought out Minnesota. Thus it happens that, although more than two-thirds of the population were born of foreign parents, it is one of the most "American" of states, and there is no state in the Union whose population averages higher in intelligence, patriotism, and creative energy.

The people of Minnesota were early tempted to repudiate a heavy issue of railroad bonds that had yielded no real public advantage. They chose the path of honor. No state has been freer from boss domination than Minnesota. There have been local bosses in the cities, and smooth-running state machines of rather temporary power, but no boss ever mapped out the work of a Minnesota legislature or guided the decisions of a governor. In ballot reform, in corporation control, in all law-making and law-enforcing advances of the political life of the day Minnesota has marched with the leaders.

Minnesota has a permanent school fund that now amounts to $19,000,000 and in another fifty years will reach $100,000,000. The Government endowed the state on its admission with two square miles of public land in every township for school purposes. At the beginning, constitutional provisions were devised to make these lands yield a permanent income for the schools. Iron ore on numerous school sections has sent a steady stream of royalties into the fund. There are still two million acres that may not legally be sold till they bring $5 an acre. Not a penny of the principal can be touched. The income, always growing, goes to build a school system which, from kindergarten to university, is carefully related.

MINNESOTA'S INDUSTRIAL ROMANCES

The story of the states' industries reads like a romance. Lumbering was the first to develop. The annual cut is now dwindling and the romance is becoming a tragedy. As this industry wanes, wood-working and others spring up to take its place. It still brings $40,000,000 a year. When it ends, Minnesota will not miss the industry, but it will miss the trees. The growing of wheat and making of flour have leaped upward with the discovery of the high food value of the hard spring wheat and the perfecting of the roller processes. In 1901, 80,000,000 bushels of wheat were produced, worth nearly $50,000,000. The average production for ten years has been 69,300,000 bushels, worth $45,500,000. But the Minnesota mills grind more wheat than the Minnesota farms yield. In 1907 its 324 mills used 103,000,000 bushels and turned out flour worth $66,600,000. Then there is the barley, the oats, the rye and corn, potatoes, sugar-beets, and livestock. Minnesota dairies produce 90,000,000 pounds of butter, valued at $25,000,000. The farmers' coöperative creameries are a part of this story.

The iron-ore deposits of the Vermillion Range were discovered in 1884, those of the Mesabi, in 1891. Since their discoveries the total yield for Minnesota mines has been 190,000,000 tons, valued at $600,000,000. To-day Minnesota produces half the iron ore of the United States and nearly a quarter that of the entire world. If one take the products of farm and

forest, mill and mine for the year 1905, they are found to be worth more than $294 for every man, woman, and child in the state.

SOME TASKS OF THE NEXT FIFTY YEARS

It seems scarcely possible that the progress of the next half-century can equal that of the last one, and yet the diversification of agriculture proceeds apace. Marvels are even now being wrought by intensification and by the scientific methods and improvements introduced by the state's experimental stations. Iron-mining is on the brink of a development almost revolutionary, since at last steel-making is to take root on Minnesota soil close to the mines and is to furnish the Northwest with steel and iron. Manufacturing, which was once principally the sawing of lumber and the grinding of wheat, is showing rapid diversification. This will be still further broadened under the stimulus of cheap hydro-electric power, with which the streams of the state potentially abound.

These are the material developments which it needs no prophet to foretell. Two gifts of the future, however, must come from the bountiful hand of the National Government — two gifts in which the whole Mississippi basin and, indeed, the whole country, will share. But they will come in response to the enlightened demands of the people, after an earnest campaign of public education.

The first of these is the scientific improvement of the waterways. When the Mississippi is transformed into an arm of the sea; when it is connected with the Great Lakes, the Atlantic seaboard and the Gulf seaboard will meet in Minnesota. Then the whole Middle West will feel that vivifying influence on all its human activities which has transformed Germany from a country of farms into a country of factories. Germany has spent millions carrying the seaboard inland; to-day it threatens British industrial supremacy in Europe and British commercial supremacy in the world's markets. The river asset is the greatest undeveloped asset in the possession of the American people.

AN ARTIFICIAL BARRIER TO SUCCESS

The second great gift which Minnesota must and will have from the Government at Washington is the utter overthrow of that artificial barrier which now shuts its cities off from their natural and proper field of activity — the Canadian Northwest. By all the laws of trade and transportation, Minneapolis, St. Paul, and Duluth should be the ports and the markets of all that vast and fertile territory. American enterprise, American energy, American brains are opening up the Canadian Northwest. Our young farmers are there plowing and sowing and reaping; our young merchants are there building towns and extending trade; our capital is there laying rails, spanning the streams with bridges, stringing wires, and conquering the whole wonderful domain. Yet the trade of this great region — the products that come out of it and the supplies that go into it — cannot flow in the channels that nature intended. It strikes that absurd barrier, the International Boundary, and is deflected across the barren wastes that separate East from West Canada; and we profit nothing by it.

At some moment a great leader will arise in the Northwest. He will thunder at the doors of Congress, voicing the demands of this fertile empire, so absurdly bisected by an artificial boundary, that at least all the commercial obstacles must be overthrown. The political division may endure, but a way will be found to tear down those mediæval obstructions in the natural channels of trade. The Government will be forced to find that way. When it is found, the great cities of Minnesota will come into their own. Their greatness of to-day, even their certain greatness of to-morrow, will be as nothing to the greatness that will be theirs when the Canadian Northwest is at last able to make them its ports on the inland seaboard, which is the way marked out by Nature.

If the statesmanship of the future is equal to the solution of such problems as these, it is clear that Minnesota's centenary will tell a story even more remarkable than that the half-century just past has recorded.

The Middle West, which has perhaps been too intent hitherto on material development — a natural tendency when there was so much to be done — is beginning to find time for the finer things of life, for the modern spirit of altruism with its promise of uplift. Its cities are beginning to adopt plans of beautification that will need at least half a century for realization. In all this quickening of the public appreciation and striving toward the better things, Minnesota hopes to have its fruitful share.

THE SILENT REVOLUTION IN TURKEY

HOW THE PROGRESSIVE PEOPLE OF TURKEY IN DIFFERENT PARTIES JOINED HANDS, CONVERTED THE OFFICERS OF THE ARMY, AND THEN SENT A MESSAGE TO THE SULTAN, WHO DECLARED A CONSTITUTION

BY

DIKRAN MARDIROS BEDIKIAN

ONE morning last summer Ebul Houdah, who was both a high religious dignitary and an official of the Sultan's court, carried a paper into the bed-chamber that Sultan Abdul Hamid had chosen to occupy for the night, and laid it before him upon the couch. The Sultan read it, turned livid, clenched his fists, and read it again. Many times that day he read and re-read the paper in a state of excitement that, it is said, almost bordered upon hysteria before the sun went down. It was a document containing the ultimatum that Niazie Bey had been sending in every day for days from the Macedonian headquarters of half the army that the Sultan had believed was his own, stating that Abdul Hamid must consent to grant a constitution for Turkey at once or he would start with three hundred thousand troops on a march upon Constantinople. Izzet Pasha, the imperial secretary, had received the first dispatches and had suppressed them until, after some inquiry in ways he knew of, he had discovered that the threat might easily be carried out, and probably would be. He had made up his mind that the news must go to the Sultan, but how? After a conference he put in writing the facts about the rebellion and Ebul Houdah, whose person was as near inviolate as anything could be in the Sultan's palace, consented to bear the missive to Abdul Hamid while the secretary prepared for flight.

Abdul Hamid thus learned the news. He called a meeting of his ministers and talked it over with them. They advised him to send troops from other parts of Turkey and put down the rebellion, which probably did not involve as many soldiers as Niazie Bey boasted he commanded. But, wherever the call for troops went, the disheartening replies came back, either in the form of news that the soldiers were disaffected or of a flat refusal to fight against their comrades and a declaration of their intention to stand with them for a constitution. Ferid Pasha, the Albanian, Grand Vizier, had been filling the Sultan with speeches about the loyalty of the Albanians of the Uskub. Now even they sided with the rebels. Ferid Pasha was summoned to the palace and dismissed in disgrace. It went thus for days in the palace. There was deep gloom among the favorites. Every day brought more news of the successful coup of the combined progressives under the leadership of the "Young Turks" in winning over the soldiery. Finally, on the 24th of July the Sultan sent forth the imperial *irade* announcing a constitution and elections for the Turkish Parliament in November. This is the story of the capitulation of Sultan Abdul Hamid before the wonderful bloodless revolution in Turkey as it has been told by men who are in a position to know.

WHO ABDUL HAMID IS

Sultan Abdul Hamid is the son of Abdul Medjid. He was born in 1842. His mother, a Circassian, died of consumption soon after his birth. He was adopted by another of his royal father's wives, who afterward was acclaimed Valideh, mother of the Sultan. Hamid was delicate and his foster-mother, who hesitated when she should have been strict with him, let him grow up a sickly spoiled child. She had much influence over him, however, and it is said that she taught him to hate the Christians and put into his head the cruelties he afterward carried out.

As a boy he was wild and wilful. My uncle, who was attached to a school in Constantinople to which the royal children were sent, has told me how Hamid once broke away from his tutor while walking in one of the

palace gardens and with a walking cane cut a swathe among the flowers. With great gusto he called to his companions to see how some day, when he became King, he would thus cut off the heads of infidels. Later he carried out his boyish threat, for in the open and by secret means, during his reign of thirty years, there have been more innocent people slain in Turkey than under any other Sultan in history.

When Hamid's father died, his uncle, Abdul Aziz, ascended the throne. His reign was corrupt and ruinous. The great Midhat Pasha, after failing to get this ruler to consent to a constitution, brought about his deposition and Abdul Murad was made Sultan. The excitement of the first months of Murad's reign unsettled his nerves. Many have believed that a short rest would have restored him to health, but Midhat Pasha and his counsellers believed that a strong man was needed at the head of the empire. Harullah, Sheik-ul-Islam, was called upon to state whether an insane Sultan might be deposed. He declared that this would be lawful. Thus Murad gave way and Abdul Hamid held the throne.

A constitution was proclaimed and many reforms were begun. The Turkish empire flourished, but Sultan Abdul Hamid was unwilling to submit long to the restraint of the constitution. Quietly he called together the men against whose cruelty and corruption Midhat Pasha had warred. He made an agreement with them by which they helped him do away with the constitutional government. The constitution was withdrawn. Those who had favored it found themselves dismissed from court. One by one they dropped out of sight — Hamid had begun his reign of corruption, hateful bigotry, and poisoned coffee. The embryo "Young Turks" party seemed to be crushed.

THE "YOUNG TURKS" PARTY

The movement for a more enlightened Turkey that has of late years been actively fostered by the "Young Turks" really had its beginning early in the last century, when Sultan Mahmoud II., about 1826, began to cultivate the friendship of the European peoples about him and had men of attainments come to Turkey to take charge of important projects. The Turks learned much that was good and much that was bad from the outsiders at that time, but then began, among some of the people, a feeling that there were possibilities of progress beyond the old hide-bound Mohammedan rules of living. There are many shades of opinion among the "Young Turks" party to-day. The name is apt to mislead an American. There are many old graybeards among the "Young Turks." It might be better to translate the party name "The New Turkey" party, or the "New Turks," for the spirit of the whole movement is progressive and in the Turkish language the party name really suggests that idea.

Turkey has been called benighted. But among its middle-class people, the most intelligent and most cultured of the Turks, there has grown up dissatisfaction with the old ideas. There is a kind of "higher criticism" among the intelligent Mohammedans, who believe that the pure tenets of the religion as given by Mohammed have been departed from and loaded with a lot of fantastic nonsense. They say that the beautiful religion of the Prophet had nothing of the bloodshed and violence and the sensuality that the Koran of to-day, which they say is a corruption and expansion of the original, makes a part of their religion. They see some of the foolishness of the civil laws that are part of the Koran. A man may divorce a wife, for instance, by omitting to tell her to return to his house when she goes out; but, if he regrets and wants her back, he cannot get her again till she has remarried and been divorced again. Some Mohammedans do not want polygamy. Some women of Turkey would like to discard the veil enjoined by the religious law. In short, the "Young Turks" want to adopt ideas of other peoples that seem good to them.

Of course there were horrible things enough in Abdul Hamid's reign to force the men and the women of Turkey who believe in common humanity to devote their lives to the attempt to obtain reforms. The progressive ideas are held by the most advanced of these, forming the "Young Turks" party which contains nearly all, of whatever shade of opinion, who demand reform.

There is the oppressive taxation by which the peasantry of the interior of Turkey has been robbed, then robbed again. It had actually come to be a fact that poor people who raised diminutive crops by the most heart-breaking toil were robbed of such a share that they were left without enough to keep them from starvation. And, again, there were the drafts for the Sultan's army, the army which

never paid. A company of the Sultan's own would drag away from their homes the young peasant husbands, who, perforce, must leave their starving families. Any who tried to escape were brought in by the atrocities toward their wives and children of which the soldiers were guilty.

TURKEY'S WHITE SLAVERY

And the slavery in Turkey has been another horror that the progressive people of Turkey wanted to do away with. This has existed in spite of its illegality, in spite of the fact that it violated Turkey's promise to the rest of Europe.

There has been the selling of black slaves brought up from Asiatic Turkey and the barter in white girls from Circassian Turkey itself. The harems of Constantinople are kept full with these. They are the children of slaves bred in the interior or they are the children of Turkish subjects, got in any one of a hundred ways that Abdul Hamid's favorites have at their command.

At most there are only a few hundred thousand of the active progressives in the Empire. The nobles who were favorites and enjoyed privileges during the old régime are, of course, not of the party. Prince Sabahatdin, whose father was a progressive, and who has been, with Amet Riza, a leader of the party, is a member of the royal family. But he has been one of the exiles who managed the revolutionary propaganda from Paris. The masses of the people have not furnished many outspoken progressives. They are very poor and afraid of oppression. They would stand for the Sultan, because of religious prejudice, if they were not suffering privation and abuse because of him. But they have not shown signs of opposing the work of the liberals.

THE ARMENIAN FEDERATION

The Armenians have all along had patriotic organizations in European centres and in America. The most powerful of these bodies, the Armenian Revolutionary Federation, was organized in Russian Armenia in 1890. Its first object was the reëstablishment of the old Armenian Kingdom, but it early gave this up and decided to try to form a republic. Christopher Michaelian was the guiding spirit of the organization, although not continually its nominal head, for he advised rotation in leadership. He was accidentally killed in a Bulgarian village a few years ago while overseeing a test of apparatus to be used in an attempt on the life of the Sultan.

The story is interesting. An Armenian patriot had volunteered to sacrifice himself in this enterprise. The plan was this: A closed carriage was to be driven through the street along which the Sultan intended to go to Mosque. Under the seat was to be a great quantity of dynamite in a bomb or mine that had been particularly devised for the purpose. As the Sultan's equipage passed close to the carriage the man in it was to explode the mine. Of course he would sacrifice his own life, but he was willing to do that if he could at the same time kill the Sultan. The plan involved the sacrifice of the driver, too. But there were men patriotic enough to make this sacrifice. The mine was made in a village near the frontier. Much depended on the success of this attempt and Michaelian went in person, as he had frequently done before, and risked his own life to oversee the preparations. The bomb was accidentally exploded. The leader lost his life, but his picture is cherished in many Armenian homes still, for he is regarded as the Washington of Armenia.

There are other Turkish and Syrian organizations of a revolutionary character. A little over a year ago an alliance of Armenian societies was formed, which had headquarters in Genoa, Paris, London, Switzerland, and New York. Mr. K. Maloumian, who has been a recognized leader of the Armenian Alliance since the death of Michaelian, last year was commissioned to approach the leaders of the Turkish parties and try to bring about a conference. He succeeded in convincing these men, who had not taken to the idea of an alliance with the Armenians and Syrians, that there was no hope for help from outside nations to bring about a just government in Turkey. They must organize themselves, unite, and do the work from within. A conference at Paris last December was arranged. For the benefit of Abdul Hamid's spies extensive preparations were made for holding the meeting at Genoa, and apparently for once the spies were thrown off their guard. The Armenians learned much from the Turkish revolutionary leaders about the ways of keeping such conferences secret and of conducting secret propagandas.

At the Paris conference many organizations were represented, and there were many dif-

ferent opinions, from the vehement demand for an attack on the palace and the killing of Hamid to the argument that his person and his authority should not be touched, and that he should only be persuaded with the show of force. A wise compromise was effected. The Armenians agreed to a programme that contemplates home rule but not separation of Armenia. Sultan Abdul Hamid was to be deposed and his régime wiped out, but without bloodshed if possible, and by open revolution. A constitutional government was to be tried for. Nothing was to be done that would serve as an excuse for outside intervention. The work of organizing for the coup was to begin at once and September 1st of this year was the date fixed for it. The Armenian alliance furnished the Turks with funds for the undertaking.

TURKISH WOMEN HELP THE CAUSE

Those who have believed that Turkish women are of inferior intelligence and spirit may learn, if ever the story of what they did is fully told, what the "Young Turks" idea has meant to the women of the Ottoman Empire. It is said that the best work of bringing the Turkish military officers to realize that a constitutional government, with salaries paid, is better than the kind the Sultan had been giving, was done by means of the wives of the revolutionists and of the officers. The veil enjoined by the Koran hid many a bundle of seditious literature aimed at the power of the Caliph.

Niazie Bey immediately went to Macedonia and began his propaganda that ended in his being in actual control of the Sultan's armies in Salonica and Monastir. The officers of the army were convinced of the secret strength of the movement and, as their pay was mostly in arrears and the revolutionary party supplied their needs, they became friendly. The rank and file of the soldiery had been recruited by methods that make the Turkish soldier as much an object of pity as other oppressed subjects. The depression in the industrial world everywhere in America and Europe accentuated the sufferings of the common people of Turkey. The receipts of gold for exported goods fell to a comparatively small figure. The middle of the year saw famine throughout the whole interior of Turkey. The Sultan's troops had been won over with unexpected quickness. The secret organization of the Turks had worked silently, beautifully. Conditions were such that an attempt to appeal to the religious fanaticism of the peasantry by the Sultan would be less likely of a hearing than ever again. There were also other reasons for not delaying the carrying out of the coup. So, on July 11th, Niazie Bey sent the first demand by the "Young Turks" for a constitutional government to the Sultan. Prince Sabahatdin and Admet Riza had hurried from Paris to the Bulgarian frontier and took command of the situation with Niazie Bey.

THE SULTAN SURRENDERS

When he found his army captured and the "Young Turks" party ready to act through their organization at every point, Sultan Abdul Hamid made a complete surrender. He proclaimed the constitution and permitted the revolutionary committee to take full charge of the government. His favorite ministers fled or were deposed. His chief of spies decamped. The revolutionary committee named his cabinet. There are many shades of opinion, Greeks, Armenians, and "Young Turk" Mohammedans, in the new ministry. The revolutionaries made the cabinet large in numbers so that it would be difficult for the wily Sultan to capture it. They saw fit to make a few substitutions in their own cabinet later. But the change in the government of Turkey was electrical. The Turkish people went wild with joy. For the first time in years one could talk openly, read papers, and send through the mails political post-cards.

THE OUTLOOK FOR THE NEW GOVERNMENT

The new government has been administered with wise moderation. There has been no attempt yet to punish anybody, except in legal ways. Men of the old régime were put on trial and got justice. Some were acquitted. The programme of giving an administration that would offer no excuse for intervention was carried out to the letter. The revolutionary leaders appreciated their responsibilities.

The first opinion in Western Europe was that the Sultan had given in for the moment but would outwit the reformers in the end. It was said that Germany would be likely to offer aid to the Sultan, and that England, fearing that the "Young Turks" idea in Egypt might threaten her own supremacy there, would also be inimical to the constitutional régime.

Men in touch with the revolutionary organizations said that it would be eternal vigilance for years, till the Sultan should die or perhaps be legally deposed or the people should become so used to liberal government that they would not permit any return to the Sultan's former misrule. The "Young Turks" will try to persuade him to give back to the people some of their property. There is a strong element among the progressives opposed to any violence toward him, but it may be thought wise to depose him and put his brother in his place. It seems hardly likely that Turkey can be made a republic. The idea of a paternal despotism suits the masses best, and a constitutional monarchy will probably be the outcome, but with local home rule everywhere. The old constitution, which will probably be the model of the new one, contained these chief provisions:

The indivisibility of the empire; the supremacy of the Sultan; individual liberty; freedom of all creeds, of the press, and of education; equal and legal taxation; a parliament with two chambers; a general election by ballot every four years.

GEORGIA'S BARBAROUS CONVICT SYSTEM

HOW PUBLIC INDIGNATION, UNDER THE LEADERSHIP OF A NEWSPAPER, CAME TO DEMAND ITS ABOLITION

BY

ALFRED C. NEWELL
OF ATLANTA

STARTLING revelations of cruelty and graft caused the people of Georgia to decide to put an end to the convict lease system. They have employed the old town meeting style of doing things. When it became apparent that certain politicians were planning to continue the system, mass meetings were held. Citizens' committees were formed. All preachers were requested to give ten minutes from their regular Sunday sermons. Large sums of money were subscribed to keep up the fight against the men who had made vast fortunes from hire of the state's convicts. It is doubtful whether such fervor has been manifested at public meetings in this country since the New England abolition gatherings. Resolutions were passed in Atlanta at a Sabbath meeting held at the Opera House and attended by four thousand, denouncing the "barter of human beings."

As a consequence of this awakening, for the first time in half a century, the General Assembly was called in special session. Its sole purpose was to terminate forever the system of allowing individuals to lease convicts for private gain. The outcome of this special session is in doubt, but the people of Georgia have made up their minds.

Oddly enough, the system which these Georgia mass meetings denounced in terms similar to the old anti-slavery gatherings was established by officers of the Union army temporarily in charge of the state government after the Civil War. Up to the outbreak of the war, convicts had been housed in a huge penitentiary at Milledgeville, where they made shoes and were engaged in other industrial tasks. Joseph E. Brown, the Confederate war-governor, pardoned all convicts who would enlist and fight for the Confederacy. By this means a large company was added to a famous Middle Georgia regiment. The captain of this company was a physician on life sentence for murder. It is a matter of record that desertions were few and that whenever the convict company marched into battle it gave an exhibition of real fighting.

A few, however, did not enlist. They were taken out when the penitentiary was burned during Sherman's march to the sea and afterward turned over to the care of General Ruger, provisional governor of the state. He had

the military idea that all prisoners should be made to work. "Take these men and hire them out. Lease them to someone who will put them to work," was his order.

Thus the convict lease system began. Men sentenced to serve long terms were practically sold to speculators. Sometimes they were sold on the instalment plan for as little as four dollars a month. Some of the speculators had been engaged before the war in the slave trade. They were experienced salesmen of human beings. Having secured their convicts on a lease which virtually amounted to a sale, they would resell them at an enormous advance. It was in this way that some of the largest private fortunes in the state were built up.

In the meantime scarcely any protest went up about the treatment of the convicts or the robbery of the state until the end of a twenty-year lease which came in 1897. At that time there was some house-cleaning. The term of lease was shortened to five years and the membership of the prison commission increased from one to three.

But no genuine effort was made to end the lease system. The fortunes of the convict speculators continued to grow. Evidence of their wealth was made spectacular. For some time there has been an increasing feeling that the state ought to get more financial benefit. It is true that in ten years the common school fund of the state has been increased $2,310,367, all from convict hire; but meanwhile the people had also seen evidence of prodigality on the part of some of the lessees which showed that they, too, were making millions. Political candidates began to denounce the system. That a serious attempt would be made to change the method of dealing with criminals was foretold in the platform of the convention which met last June to nominate Joseph M. Brown as the successor to Governor Hoke Smith. "Little Joe" — so-called because of his diminutive stature — is the son of the war governor.

As the present contract with the lessees expires before Mr. Brown assumes office immediate action was necessary. Mr. Fred L. Seely, owner and editor of the *Georgian*, a daily newspaper at Atlanta, is a newcomer in the state. He began a spirited assault on the lease system. The prison commission did not like it and refused to give him information. Then he began to spend money to find out what had been going on at the convict camps.

What he discovered compelled the General Assembly then in session to order an investigation. It was thought that this investigation would be brief and of no consequence, but Senator Thomas Felder, chairman, went at the task in earnest. Before his investigation had been under way a week it was apparent that Mr. Seely's crusade was a serious matter.

Instances of what the resolutions of the Atlanta mass-meeting called "barbarous cruelty" were described under oath. A number of witnesses told of having seen prisoners whipped to death. Every camp of Georgia convicts has a whipping boss who is required to keep a "whipping register" — a book in which each castigation is recorded. It was brought out at the investigation that it was customary for the whipping boss to "sand" his leather thong in order to make it "sting." Goode, a guard, sanded his leather strap to whip "Abe" Winn, a white boy sixteen years old, sent up for stealing two cans of potted ham. "Abe" was described by witnesses as "a frail little fellow." He had spilt hot coffee on the back of pigs owned by the guard. Goode had four Negroes hold the boy while he delivered fifty-seven licks with his sanded strap.

"I saw him stagger to the hospital steps," said one witness, Lewis, son of a former member of the Legislature. "He could not lie on his back but died on his stomach. They said he died of consumption."

Rules of the state require the convicts to be worked not over ten hours a day. Witnesses told of having seen men assigned to get out a certain number of tons of coal a day from the mines. At one camp near Atlanta it was asserted that the usual task for a squad of five convicts was to handle 10,000 bricks a day.

It came out at the investigation that a report concerning this camp made to the legislature had been "lost" by the chairman of the penitentiary committee and a new report presenting favorable conditions substituted. It was also discovered that the senator who had "lost" this report had been appointed a member of the Felder investigating committee. He afterward resigned.

The "lost" report was found. It told how the 178 men at work in this camp were driven night and Sunday and made to go at a trot with great loads of brick. They were driven into hot kilns where their lives were in da
A chief warden had accumulated real

worth $50,000 on $1,600 a year and then became business partner of a firm that made a profit of $562,500 on one transaction concerning 500 convicts. The son of the secretary of the Prison Commission of Georgia was the confidential representative of this firm. Twenty-nine wardens supposed to be working for $600 a year for the state were also getting salaries from lessees. The Prison Commission is made up of men regarded as clean, but careless. General Clement A. Evans, Commander-in-Chief of the Confederate Veterans, seventy years old, is a member.

There are 2,534 convicts in the camps of the state. The investigation has also brought to public attention the traffic in persons who have been convicted only of misdemeanors by county officials, in direct violation of law.

CAN "LABOR" BOYCOTT A POLITICAL PARTY?

MR. GOMPERS, OF THE AMERICAN FEDERATION OF LABOR, HAS FORCED IT INTO POLITICS DESPITE ITS CONSTITUTION AND TRADITIONS — WITH WHAT RESULT?

BY

FRANCIS JOHN DYER

MR. SAMUEL GOMPERS, who has been quoted as boasting that he would deliver 2,000,000 labor votes to the Democratic party, is the most conspicuous figure in the labor world. An English Jew, fifty-eight years old, he came to this country at the age of thirteen and before he was fifteen he joined the cigarmakers' union as a journeyman. He is ambitious, energetic, and resourceful, short, squat, and powerful in build, with the spatulate fingers of a man who does things. Careless in his dress, he usually wears a cap to cover his grayish hair and his growing baldness. A pair of big spectacles give him almost a gnomish look. His face is clean-shaven and his most prominent feature is the wide, mobile mouth of the facile speaker. He readily adapts himself to his company, and on occasion he can be gentle, diplomatic, convincing, argumentative, or blustering. He is almost worshiped by his closest adherents and office assistants. They look on him much as a father, refer to him intimately as "the old man," and are quick to take up the cudgels to resent any criticisms directed at him or his work.

His mental horizon takes in little but labor problems. With him the science of economics begins with the duty of capital to labor and ends with the dream of having every toiler a member in some labor union, and every union affiliated with the Federation, the president of which, Samuel Gompers, shall dictate the hours of toil and the reward, also the terms of settlement of every dispute between employer and employed. He believes that the only measure of labor's deserts is all that it can get, and he declares that it will never reach the point where it will feel that it has enough, but will ever demand more.

While a child in England, Mr. Gompers imbibed the first principles of unionism from his father who, yet alive but blind, was a cigarmaker. At the age of ten the lad left school and began his apprenticeship to a shoemaker, but the smell of leather was less agreeable to him than the odor of tobacco and he quit shoe-making to learn how to roll cigars. As a lad of fourteen he was organizing an association of similar youths in New York, which they called the Arion Club. They indulged in athletics and held regular debating sessions in which they gravely discussed public questions. Early acquiring the habit of leadership, he became president of the club. This sort of training gave him practice in speaking. When, in later years, his club dissolved to become a lodge of one of the fraternal insurance orders, Gompers, before he was of age, became the chief executive officer.

HIS RISE IN LABOR ORGANIZATION

Already he had become an active worker in the labor movement. "I had long realized

the wrongs that the laboring people had to endure," he says, "and I cut loose from activity in all other associations and gave my attention to the labor movement alone, still retaining my membership in the others." He served on committees in his local union for several years, became its executive, and later was state federation president for New York during two terms. He was beginning to understand what power and authority meant. In 1881, he was chosen by the cigarmakers to assist in the formation of the American Federation of Labor. Early in its history he became its president, and he has kept his hold on that office, mainly by his powers of oratory, ever since, with the exception of one term.

When he reaches his desk in the handsome Typographical Building opposite the Pension Office, in Washington, he usually finds a pile of mail awaiting him from all parts of the United States and Canada, including many appeals from unions to visit them and to speak. More than a hundred cities this year asked his presence on Labor Day. Unions are constantly submitting to him grievances between workmen and their employers, and asking for permission to strike. Organizers ask help where unions are apathetic and disintegration is taking place. New unions apply for charters. Others complain that they can not meet assessments. Cranks write to tell of the oppression of labor. Some abuse the courts and the legislatures. Others write to abuse Gompers himself. College professors, debating societies, and sociologists write for literature on the "labor movement."

THE AMERICAN FEDERATION OF LABOR

It has been said that the American Federation of Labor was organized to fight the Knights of Labor, which was then a big and powerful order. Mr. Gompers denies this and says that its organization became necessary because the Knights of Labor failed to recognize the natural form of organization among workers, but took men of all crafts into the same lodge. This brought on antagonism between the Knights of Labor and the unions. The old National Labor Union, which had dissolved years before, was resurrected by some of the leading spirits in the union labor movement, and, in 1881, the Federation of Organized Trades and Labor Unions of the United States was organized. In 1886, this became the American Federation of Labor. It was modeled on the British Trades Union Congress and the plan was to have no salaried officers. But, in 1887, the president received a salary of $1,200, which was raised by successive stages until he now gets $5,000 a year and traveling expenses, and is required to give his whole time to the duties of his office. The secretary and the treasurer also receive salaries.

The revenues of the Federation show how the organization has grown. In 1887, they were $2,100; in 1891, $17,702; in 1897; $18,639; ten years later, in 1907, they had reached $285,870.

The Federation aims to bring the existing organizations into central city unions and then to combine these bodies into state federations able to influence legislation; it aims also to establish national and international unions; and to build up American Federation of Labor bodies that will assist one another, encourage the sale of union-label goods, cultivate friendly public opinion, and agitate for labor legislation.

The president and an advisory council of eight vice-presidents, a secretary and a treasurer are elected at the annual convention. The revenues are derived from a tax of one-half of one cent per month on the members of affiliated national and international unions; ten cents per month for each member of local trades unions having no national organization (of which five cents must be put into the defense fund); and $10 a year from each central or state body, besides which there is a charge of $5 for each charter issued. In return for financial support the Federation acts as mediator in labor disputes and pays strike benefits of $4 a week under certain conditions.

The organization is loose. It depends wholly on the confidence of the subordinate bodies. But, even with the nominal charges for membership, the Federation has not been built up without a tremendous amount of energy and labor. There are twenty-eight salaried organizers in the field, including one woman, and all receive the same pay. Every organizer makes a report of his work weekly, and his permanent engagement depends on the results achieved. Besides the twenty-eight regulars, there are 1,200 volunteer organizers. As occasion seems to warrant, these may be assigned to work on full pay — $5 a day, $2.50 a day for hotel bills, and railroad fares. These organizers have no real authority; but, backed by the Federation, they exercise a moral force and often succeed in smoothin

difficulties. Affiliated bodies may not declare a strike without the sanction of the Federation.

THE FEDERATION'S STRENGTH

The "high water mark" of membership was reached in 1894, when it was claimed that the affiliated bodies numbered 1,676,200 individual members. It was greatly reduced the following year by internal strife, secession, and ill-advised strikes. By determined efforts the losses in membership were made up, it is claimed, till last September there were 1,683,424 members "paid or reported on." The membership, however, is one not easily determined with accuracy, for the federationists magnify their strength and their opponents belittle it. The last annual report claims the following affiliated bodies: international unions, 117; state federations, 37; city central bodies, 574; local trades and federal labor unions, 661; total, 1,389 affiliated organizations. The international unions claim a membership of 28,500 local unions.

So humble was the beginning of the Federation that President Gompers and three clerks at first did all its work. He kept at his trade as a journeyman cigarmaker to make his living. Now there are a score of stenographers and typewriters, about as many clerks, the legislative committee (which, to be sure, has accomplished scarcely anything worth mentioning but still hopes), and the executive committee with its regular sessions four times a year. At times the office force is expanded to seventy persons.

The most important national legislative result that the Federation claims is the eight-hour day for Government employees. But it has advocated a great deal besides, including the Australian ballot, the income tax, the free coinage of silver, protection, election of senators by direct vote, the initiation and referendum in state and municipality, compulsory education, Government ownership of railways, telegraphs, and telephones, postal savings banks, the forbidding of transportation of goods made in sweat-shops, incorporation of trades unions, abolition of convict labor, prohibition of Chinese immigration, restriction of apprenticeship, child labor laws, sanitary inspection of workshop, mine and home, abolition of monopoly ownership of land, employers' liability, and so on.

GOMPERS'S THEORY OF WAGES

Mr. Gompers holds this peculiar economic theory — that no industrial depression can warrant a reduction of wages. He has said, "If all labor will unfalteringly adhere to the determination to resist all reduction in wages, we shall not only avoid the misery, poverty, and calamity of the past, but we shall teach financiers, employers, and economists in general a new philosophy of life and industry, the magnificent and humane influences of which will be for all time."

Mr. Gompers has himself counselled the philosophical acceptance of many reductions of wages during the late industrial depression, but not because he has changed his ideas, for he derides the idea that the law of supply and demand has anything to do with the price of labor.

DRAGGING LABOR INTO POLITICS

After the party conventions Mr. Gompers said:

"Concerning the two principal party platforms on injunctions, the Republican plank is a flimsy, tricky evasion of the issue. It is an endorsement of the very abuse against which labor justly protests. The Democratic plank is good all the way through."

He committed the Federation in an editorial in the August number of the *American Federationist* by saying:

"We have no hesitation in urging the workers and our friends throughout the country to support the party in this campaign which has shown its sympathy with our wrongs and its desire to remedy them and to see that the rights of the people are restored.

"We say this not necessarily because it is the Democratic party which has done this. We would urge the workers to support any party which had incorporated our demands into its platform and promised to work for their fulfilment."

Now the policy of the Federation has all along been to steer clear of partizan politics and to use its political influence upon all parties. Its constitution says:

"Party politics, whether they be Democratic, Republican, Socialistic, Populistic, Prohibition, or any other, shall have no place in conventions of the American Federation of Labor."

The past can show many wrecks of organizations, labor, social, and fraternal — which succumbed to the desire of some leader to use them as political assets. Ever since the Federation had an existence there has been warfare

within its ranks between those who would commit it to political principles and parties, and those who saw in such a course nothing but an inevitable wreck. At convention after convention somebody has proposed a political programme. The proposal has been voted down and time and again pronouncements have been made against officials using their positions for political purposes. Two years ago the Federation, under Mr. Gompers's guidance and with money to spend, was engaged in a fierce political struggle which centred in attempts to defeat Congressman Littlefield of Maine and Speaker Cannon for reëlection. Both men were reëlected.

Mr. Walter MacArthur, historian of the Federation says:

"The advocates of political action by the American trades unions cite the example of those organizations in Europe which have compelled the enactment of much 'reform' legislation, but that every prominent labor man in London regards official position in his union as the 'natural stepping stone' to political office is in itself ample explanation of a lack of interest in trades unions. The trades union official who seeks political office is the bane of the labor movement. The trades union which adopts the policy of political action makes political ambition inevitable on the part of its officials. There can be no intermediate form of organization between the trades union and the political club. No form of organization can combine trades unionism and politics. The trades union cannot 'go into politics' and remain a trades union; if it would remain a trades union it must keep out of politics; if it takes political action it must become to all intents and purposes a political body. . . . The facts go to prove that the mere talk of organizing the workers so that they shall 'vote as one man' is dangerous to the trades union that indulges in it."

MR. GOMPERS FINDS OPPOSITION

Hardly had Mr. Gompers been quoted on the Democratic platform before scores of labor leaders rushed into print denouncing him and declaring, as John Mitchell did in Boston in 1903, that they wanted no man to issue instructions to them how they should vote. There have been threats of secession and it has been discussed whether the Federation would not split into two or more factional bodies.

The revolt against Mr. Gompers's political dictation should not be regarded too seriously. He has shown in his career as a leader great resourcefulness and ability as a politician within the order of no mean merit. Through his board of vice-presidents, able men and all of them executive officers of their unions, except John Mitchell, who has recently relinquished that position, he virtually holds the destinies of the Federation in the hollow of his hand. These eight vice-presidents represent the most powerful of the national and international unions, which have a voting strength of 7,538, nearly one-half of the voting strength of the entire Federation. The unions not represented by the official set have 8,887 votes. There is an army of organizers whose interests are bound up with those of the higher officials. They always form a considerable proportion of the delegates and their votes can be relied on to put through official programmes. The officers of the organization do not vary materially from year to year, which shows that they have a firm grasp on the organizations, and Mr. Gompers has little concern for his future as long as he can retain the active friendship of his vice-presidents. There is talk from time to time about opposition to him in the Federation, but he merely shrugs his shoulders and says: "Very well, if they do not wish to have me as their president, let them choose someone else." But his well-oiled machine is not likely "to slip a cog" unless some great upheaval comes along, and even then there will always be a fighting chance with the odds more than even for the machine to win out.

CAN MR. GOMPERS DELIVER THE LABOR VOTE?

Mr. Gompers likes to deal in round numbers. He has said that the Federation influences 2,000,000 votes and other labor leaders have talked about "swinging 2,000,000 labor votes." His own official organ claims 1,683,424 members for the organization. About two-thirds of these are said to be minors, aliens, and women. Therefore, the organized labor vote in the Federation cannot be near 2,000,000.

The question is how much of a sympathetic vote Mr. Gompers may be able to gain among organized workingmen of unions not affiliated with the Federation and among workingmen not unionized at all; how much the anti-injunction plank may attract voters who are not laboring men at all but have other reas for liking it; and, on the other side, h strong are the anti-Gompers leaders among rank and file of the unions, who may no too trustful of the men who have had engineering of the activities of the local un

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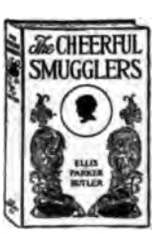

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This city had three merchants in that line of business.

The first was a merchant-prince — established forty years, rich, prominent in business and public affairs. He refused to handle this new line.

"Why should I lend our reputation to build up your business? No advertising you can print in the magazines will make your word as good as ours in this city."

The second merchant was the largest competitor of the first. He was willing to order a small lot of the goods, but said they must take their chances — he did n't propose to let any outsider build on *his* reputation, either.

The third merchant in this town was a beginner — obscure, hampered for capital. But this third man saw that the promotive work the manufacturer proposed to do, if actively backed up by himself, could be made a strong lever in building a new business.

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When the magazine advertising began the small merchant had these new goods in his tiny window. Through the mails and the newspapers, too, he let people know that he carried this identical line, in a full range of sizes, and that they could be bought nowhere else in that town. He backed the manufacturer's magazine advertising loyally and intelligently, and swung into the current of the new demand.

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These two merchants had heard that there might be an opportunity to secure this right and rectify their past error of policy. For that once obscure little merchant had grown to a point where he was selling his business to seek a wider field.

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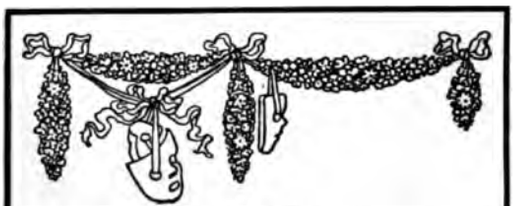

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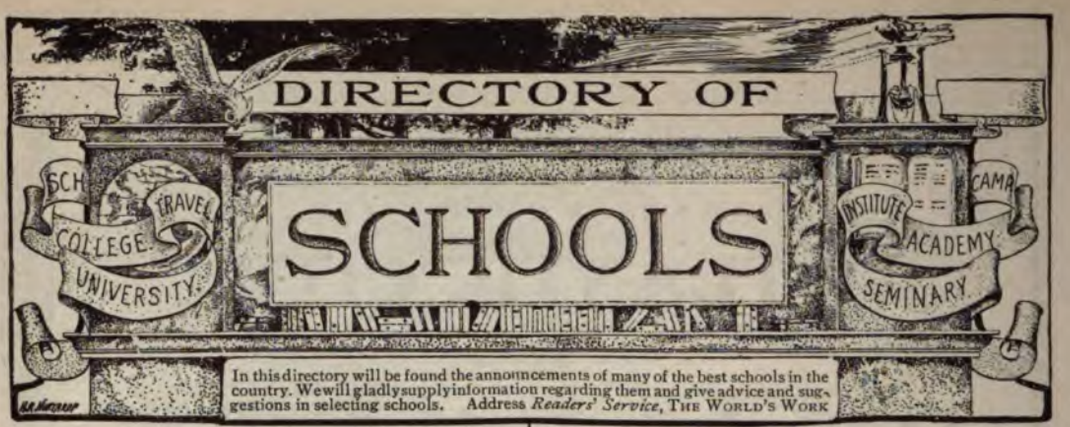

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[In this department we shall answer, free of charge, queries concerning matters of insurance. A few queries and answers will be printed each month, and other queries will be answered by mail as quickly as possible. All letters must be signed, and must enclose a two-cent stamp. The field of this department covers life, fire, casualty, income, accident, burglary, and all other forms of insurance known to the industrial world. We shall not attempt to decide legal points, but shall advise consulting a lawyer where such action seems wise. Address all inquiries to The Readers' Service, THE WORLD'S WORK, *New York.]*

1.— NORWALK. *Q.* I paid a double premium for insurance of a hay barge, and received a policy, the insurance company understanding that the vessel was not wholly seaworthy. They refuse to pay, on the ground that the vessel was not a proper risk. Can I collect my insurance.

A. The case is one for a lawyer. In a recent case in New York, the District Court for the Southern District decided against an insurance company which contested a policy on similar grounds, holding that the policy had been issued and nearly a double premium charged because of the company's knowledge of the condition of the vessel. Under the circumstances, it is worth your while to pay a lawyer to look into the matter.

2.— NEW YORK. *Q.* I have been asked by agents for three new life insurance companies to take out policies. They argue that the new companies which have come in since the Armstrong hearings have eliminated the evils of the old companies. Is this, in general, a fact?

A. We have no doubt that it is largely true. We cannot, however, refrain from warning you that a great many of the new companies that have sprung up are almost certainly destined to failure. In this connection, the following figures showing the number of companies doing business in the years named may be of use to you: 1904, 93; 1905, 102; 1906, 138; 1907, 259.

In other words, the very argument that is given to you is being used throughout the country by a veritable host of new companies. We could name six of them, offhand and without further investigation, that have no right to live. These six, and probably many more, were formed and floated in the interest of promoters of the gambling type, who made their money in the flotation.

A good many of the companies offer their stock to buyers of policies. We think the practice utterly in error, and shall not hesitate to criticize it even in the case of companies unusually well-backed and cleanly managed.

3.— MASSACHUSETTS. *Q.* The National Protective Legion offers to pay a premium of $250 at the end of five years to policy-holders who pay $2 per month during the five years. The offer looks unusually liberal to me, and I should like to know if it is sound.

A. This offer has been withdrawn, under pressure from the authorities. As a result of it, while it stood, the present members of the Legion have to make up a deficit of about $3,000,000. Such a deficit was almost inevitable. The payment of a 200 per cent. dividend in five years was utterly impossible without either the wildest kind of speculating, always successful, or else the piling up of a deficit to be met by the members at some time or another. The nature of the offer should be plain enough on the face of it. If you ever get a big thing for nothing in insurance, be very sure that it comes out of somebody else's pocket, and that a day of reckoning is about the surest thing in the offer.

4.— BOSTON. *Q.* I am offered stock in a new Massachusetts life insurance company, and urged to buy on the ground that stocks in the Ætna, Travelers, and others are now selling at prices from $1,000 up per share. Would you buy or not?

A. Unless some better argument than the above can be adduced, we advise you to leave it alone. The fact that stocks of companies forty years old are worth thousands is surely no argument at all. Investigate the people who make you the offer; find out whether they are insurance men, or merely promoters: use the same caution in going into this business concern that you would use if you were asked to go into partnership in business with some strangers.

5.— COVINGTON. *Q.* What do you know about the Citizen Life Insurance Company, of Louisville, Ky.?

A. It was started in November, 1904, and had $19,178,500 of insurance in force by January, 1907. Its premiums in 1906 were $495,693, of which it spent $485,350 on "administration." We consider that very high, even for a new company. Its business and methods seem legitimate, and it may develop into a very strong company.

6.—CHICAGO. *Q.* I am 55 years old and cannot pay more than $2.25 per month. I think I can pass an ordinary medical examination. Can you tell me where I can get from $500 to $1000 good, reliable insurance for $2.25 per month (or $27.00 a year?)

A. For a man 55 years old the premiums for a $1,000 policy are about as follows:

For an annual premium life policy.....$60
For a 20 year term policy.....$50

The rates for $500 are a little more than ½ of the $1000 rate. Most of the old line companies however do not issue policies for less than $1000, but there are several which do.

7.—SAN JOSE. *Q.* Given a man of 52, married, no children, of good health, non-alcoholic, non-tobacco user. About what sum per year could he secure in annuity from a life insurance company for the lump sum of $10,000, of $20,000, of $50,000?

A. You can get about $725 a year from your 52nd birthday until the time of your death in return for the payment of a lump sum of $10,000. For a sum of $20,000 twice that, etc. The size of the payment does not affect the rate.

8.—COOLEEMEE. *Q.* Will you inform me of the value of Philadelphia Life Insurance Co's. stock as an investment in connection with the option for stock which they give with their policies.

A. The company was begun in 1905, had on January 1, 1907, a capital of $543,030 and had received $587,613 in premiums during the year. The expenses of management (exclusive of taxes) amounted to $497,935 out of a total disbursement of $527,361. Although this is a very high expense of management, it is somewhat explained by the fact that it is a new company and the initial expenses are always high in proportion to the premiums received.

Aside entirely from the record of this company we believe it to be a safe rule to keep your investments and life insurance entirely separate and distinct.

9.—AKRON. *Q.* Will you advise me as to the age and reliability of the Travelers Insurance Company of Hartford, Connecticut?

A. The Travelers Insurance Company was founded in 1863, and it has a capital of $1,000,000 and in 1907 gross assets of $53,474,038. The proportionate cost of management to the total income from premiums is and has been about 21 per cent., which is a good showing. It is a good, sound company.

TO THE READER. In asking questions about life insurance policies the editors ask that our readers will give the following particulars:

(1) Name of company.
(2) Kind of policy.
(3) Whether participating or non-participating.
(4) Amount of the premium.
(5) Age of the insured when the policy was taken.

This will often save an interchange of letters before an answer can be given.

Concerning the Selection of Investments

Persons having surplus money for investment should be most careful not to entertain, under any circumstances, the purchase of securities which do not possess every reasonable assurance of safety as to principal and the punctual payment of interest.

In addition, it is important to remember that properly selected investments are those which may be reasonably expected to appreciate in market value in ratio to the growth and development of the properties upon which they are secured. This is particularly true in these days, when high rates of interest must be paid for money absolutely necessary for the development and extension of even the most meritorious enterprises.

While it is not always essential, it is nevertheless desirable that an investment should possess either an active, or, at least, a reasonably broad market. Of course, where a sum of money is invested with the object of securing the largest amount of income compatible with safety of principal, it is frequently deemed advisable to sacrifice some degree of marketability for the sake of greater revenue.

However, it is our belief, based upon many years' experience, that at least a part of a given sum of money should be restricted to the purchase of securities that can be readily sold in the event of a future contingency making it necessary to quickly convert the investment into cash. This applies especially to the surplus funds of business men, which, broadly speaking, should not be placed in securities having practically no market whatsoever.

We find that there is an abundance of money in this country for investment, but that there is a strong tendency upon the part of persons having such funds to exercise very great caution in making their selections. This, however, cannot be regarded as other than an ideal condition by those firms whose investment offerings comprise securities issued against properties which will bear the closest scrutiny from every standpoint. Such discrimination must also prove to be of the greatest benefit to the individual investor, who not only safeguards his money by employing it in sound investments, but, moreover, becomes a contributor to the restoration of normal conditions in the general business world.

We are prepared to furnish reliable information regarding any security which investors may wish us to investigate, and all communications addressed to us upon this subject will receive the benefit of our many years' experience and comprehensive organization.

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The "National Company" has no bonded debt. It pays regular quarterly dividends at the rate of 5% per annum on its $1,000,000.00 preferred stock. Surplus earnings, which have been used since the company was organized for improving the properties of the constituent companies, amount to more than 4% on its $2,000,000.00 common stock.

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Our 18 years record—no losses and customers in thirty-one States appeals to conservative investors.

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1866 — **1908**

HARTFORD STEAM BOILER INSPECTION AND INSURANCE CO. HARTFORD, CONN.

41st Annual Statement

January 1, 1908.

CAPITAL	$1,000,000.00
SURPLUS	1,006,868.06
RESERVES	2,053,326.74
ASSETS	4,060,194.80

The **HARTFORD** was the Pioneer Company in the field of Steam Boiler Insurance and it is the only company which makes a specialty of and does exclusively a steam boiler inspection and insurance business.

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We Own and Offer

	Yield
Short Term Notes	4¾% to 5¾%
First Mortgage Long Term Railroad Bonds	4 % to 5 %
Electric Railroad Long Term Bonds	5 % to 6 %
Equipment Bonds	5½% to 6 %
Municipal Bonds	4 % to 4¼%

For particulars send for circular No. 611

Guaranty Trust Company
OF NEW YORK

ESTABLISHED 1864.
Capital $2,000,000
Surplus 5,500,000

28 Nassau Street, New York.
33 Lombard Street, E. C., London.

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"Units" of Ownership of Central Business Property

Principal and Interest secure.
Properties not mortgaged.
Banks familiar with properties loan liberally on "Units."
We can offer you "Units" on ten different properties paying from 5½ to 7% net.

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Trustee Securities Company
1 Wall Street, New York

N.B.—Through no fault of ours, a typographical error in April World's Work adv. exaggerated the value of properties converted into "Units."

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The knowledge to be derived from this book means dollars to you. It has not been written by anyone with an "ax to grind"—and it has not been written for any particular class but for the general public.

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They are redeemable after three years, on demand, at holder's option, and redemption is provided for by a **SINKING FUND** maintained under a TRUST AGREEMENT with the

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Continued absolute security is further insured by charter restrictions which compel the maintenance of paid-in capital and quick assets largely in excess of bonded obligations. They combine

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GENERAL OFFICES, 425 FIFTH AVENUE, NEW YORK

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TOM L. JOHNSON

President of this bank, as an earnest worker for the interests of the whole people is world-wide. Few men are better known and the efforts of none are more appreciated. In organizing this bank we enlisted the personal and financial co-operation of Mr. Johnson upon the understanding that it should be a bank *for "the people"* rather than for the benefit of a few capitalists.

It is particularly gratifying that we are able to present our

BANK MONEY ORDER PLAN

the most *perfect* method ever devised for handling accounts from depositors *anywhere* in the world. When you send money to us for deposit, we issue to you, instead of the old clumsy "pass-book," with its dangerous and inconvenient features, our Bank Money Orders. They show, on their face, the amount of principal and interest—you know what it is at a glance, without figuring. They are *Certified Checks* on this Bank, the *safest* known form of commercial paper. You *keep* them and when you *need* money,

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Deposits accepted for any sum from $1.00 up, and from the moment your money reaches us it draws

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If you have money on deposit *anywhere*, or if you contemplate opening a savings account, you *owe* it to *yourself* and those dependent upon you to *investigate* this remarkably convenient and safe method.

Write for booklet "I" *today*, or send us your deposit and we will at once mail you BANK MONEY ORDERS for the full amount. The booklet is free—write for it now.

THE DEPOSITORS SAVINGS & TRUST CO., Tom L. Johnson, President, CLEVELAND, OHIO

NEW YORK LAND OWNERSHIP

Has produced more permanent fortunes than any other source of investment. The Astors, Goelets, Rhinelanders, and many others bought farm lands held them until used for residence and business, and

They Still Own Them

The New York Realty Owners Co. has for twelve years successfully followed their example. It owns nearly $3,000,000 worth of lands, besides paying shareholders a million dollars. The Company enables individuals to secure the large profits which are gained from Land Ownership under the best conditions, and it secures such profits to those who wish to invest small sums for accumulation during a term of years, as well as for those who wish to receive the largest income from investments of $100 to $10,000.

Ask for Booklet W.

NEW YORK REALTY OWNERS CO.

489 FIFTH AVENUE, N. Y.

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IN connection with our other work we are collecting and tabulating all Fundamental Statistics relating to commercial and industrial conditions which indicate the "trend" of business, money and investments

A subscription of $24.00 per year (with an initial fee of $15.00) entitles subscribers to full Use of this Department and to be notified whenever the data collected indicates a change for better or for worse. We recommend no special stocks.

This service is creating intense interest and is the source of much discussion among investors and business men.

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6% New York Central Realty Bonds

An Investment for Your Savings

Our 6% GOLD BONDS are secured by First Mortgages on NEW YORK REAL ESTATE, deposited with the WINDSOR TRUST COMPANY, TRUSTEE, $105,000 of these First Mortgages being deposited for every $100,000 of bonds issued. These bonds provide an investment for your savings which pay 6% interest and, after the first year, offer the *same privilege of withdrawal as a Savings Bank Account.*

Your investment can be placed in

Multiples of $100

These convenient amounts enable you to keep your entire surplus earning this high rate of interest.

For sums smaller than $100 we issue instalment certificates, to apply on our full paid bonds. You can purchase this FIRST MORTGAGE SECURITY in instalments of

5 Dollars and Up

each instalment bearing interest from the date of its payment and subject to withdrawal at any time.

For the large or small investor our 6% FIRST MORTGAGE BONDS combine the three essentials of the perfect investment: Absolute Security — High Earning Power — Cash Availability.

Write for our booklet. It explains how you can stop that loss of from ¼ to ⅜ on your interest earnings.

NEW YORK CENTRAL REALTY COMPANY

Suite 1738, 1133 Broadway, New York

(Surplus and undivided profits $1,000,000.00)

A-RE-CO APARTMENTS

Your Money is Worth 6%

Are you getting it? Or are you dividing it with a middle-man?

THREE or four per cent. implies a middle-man's profit. You can get both the interest paid and the middle-man's profit, with equal or better security, through the 6% GOLD BONDS of the American Real Estate Company. These bonds combine liberal return, unquestionable safety and cash availability.

THIS is a simple and time-tried proposition—safely *investing* your money, instead of safely *loaning* it, in the most profitable conservative business in the world—selected New York real estate.

FOR twenty years the American Real Estate Company has paid 6% to thousands of investors. Our assets of over $10,500,000, including Capital and Surplus of over $1,600,000, prove the earning power and conservatism of our business. These bonds are offered in two forms:

6% Coupon Bonds

For Income Earning—sold at par in denominations of $100, $500, $1000, $5000, or any other desired amount in even hundreds; paying 6% interest semi-annually by coupons attached, carrying privilege of surrender for cash.

6% Accumulative Bonds

For Income Saving—purchasable by instalment payments covering terms of 10, 15 or 20 years; payments and interest payable in cash at maturity. Yearly rates per $1,000: 10-year term, $71.57; 15-year term, $40.53; 20-year term, $25.65.

Write today for details, including map showing location of Company's properties.

American Real Estate Company

515 Night and Day Bank Building
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THE WORLD OF FINANCE

In this department we shall be glad to answer questions relating to investments that seem to be of general interest. We cannot act as a rating agency. Questions of distinctly individual interest we shall reply to by letter, but these are as welcome as those to which the answers will be of wider service. All enquiries should be addressed to The Readers' Service, THE WORLD'S WORK, *New York. All letters must be signed.*

125.— QUEENSTOWN. *Q.* When the Atchison and the New York Central Railroads reduced their dividends, the stocks went up two or three points. Can you tell me why this happened? Would it not be more natural that they should go down?

A. This is not an unusual phenomenon in the stocks of railroads dealt in largely in the stock market. The reason is that the people who knew, or thought they knew, that the dividends would be decreased had sold stock in large quantities some time before the directors took action and reduced the dividends. Traders had sold the stock "short" in large amounts. When the dividends were actually reduced, these people, and a lot of others who had been waiting for the dividend, bought stock as it was offered in the market. This buying, partly, as you may note, for investment, and partly to "cover shorts," caused the slight advances. It is not at all unusual to see stocks that have reduced their dividends maintain their prices, or even higher prices, for some time. In some instances, particularly in such stocks as these, which are owned by many thousands of people, real liquidation takes place after the dividends are paid, as the owners of the stock do not know the dividend has been lowered until the checks are received.

126. MONTANA. *Q.* Do you not think it a good time to buy copper stocks? Things are so bad that they cannot be much worse in that department.

A. That would be a good enough reason for a speculator, but a man who has to depend on the income from his investments should not buy merely because "things cannot be much worse." We think that holders of standard copper stocks, representing mines that produce copper in large quantities, will do well to hold them without much uneasiness. We do not advise buying them except with the understanding that they represent an industry that is very speculative, and subject to the widest and most remarkable changes. Above all, a copper "prospect," that is, an undeveloped mine, is a pure gamble.

127. LEHIGH. *Q.* If they enforce the rate law with regard to coal lands owned by the railroads will it not ruin the hard-coal roads? I hold Reading general 4 per cent. bonds and Lehigh & Wilkesbarre Coal bonds, and am a little uneasy about them.

A. No enforcement of the coal land clause can take away the security behind your bonds. The Government has shown no intention of ruining the coal roads. The law will not be put into effect on May 1st, and full opportunity of the proper sort will be allowed for its enforcement without jeopardizing the interests of innocent bondholders. We regard your two bonds as practically gilt-edge.

128. NEWARK. *Q.* Please give me information about the Hudson Company's notes, as to amount, rate, etc. Would you buy them as an investment for a church fund in Newark?

A. They are an issue of $15,000,000 6 per cent. notes, dated February 1st, 1908, and payable in gold August 1st, 1910, interest payable February 1st and August 1st. They are secured by $22,500,000 of 4½ per cent. bonds of the Hudson & Manhattan Railroad (now an underlying company of the Hudson Companies), and may be called by the company on any interest day at 100 and interest plus 1 per cent. per annum from the date of redemption to August, 1910. If called, however, the holder may take the same amount of the underlying bonds in lieu of cash, if he wants them.

The notes are good, but we do not regard them as suitable for church funds to be invested by trustees. Such investment should be in bonds or securities legal for savings banks in New Jersey.

129. DOVER. *Q.* Would you sell Delaware & Hudson stock held by an estate, on account of recent litigation that seems to indicate some wrong-doing? Is the road earning its dividends?

A. We should not sell on account of litigation or for other cause. The road seems to have earned about 15 per cent. in 1907, and if your estate is entitled, under the provisions that brought it into being, to hold this stock, we should continue to do so, at least until normal times return.

130. OHIO. *Q.* As a holder of refunding bonds of the Cincinnati, Hamilton & Dayton, would you accept the exchange into new collateral trust gold notes bearing 4 per cent.? I am asked to give up $9 per bond in the exchange.

A. We certainly should make this exchange. It seems to us to offer you better chances for a recovery than you were entitled to expect under the circumstances.

131. UTICA. *Q.* Some years ago, when the Chicago & Alton was controlled by the Union Pacific, I bought some of its 3 per cent. bonds, relying upon the strength of the Harriman roads. Now the Alton is owned by a road I never heard of, called the Clover Leaf, I think. Have I any recourse?

A. The Chicago & Alton never was controlled by the Union Pacific, and its bonds were never guaranteed by the Harriman roads. Nor are they now guaranteed by the Clover Leaf, whose full name is the Toledo, St. Louis & Western. You have no recourse except the stock market, which will give you about $700 per $1,000 of bonds, if you should desire to sell them. At that price an exchange into Rock Island Refunding 4's, Union Pacific Convertible 4's, or Lake Shore Debenture 4's would give you larger revenue. So far as principal safety is concerned, we do not advise any change.

132. CHICAGO. *Q.* A friend of mine claims that the first three months of this year brought more bankruptcy than any similar quarter in the past twenty-five years. I think that 1896 was much worse. Which of us is right?

A. According to *Bradstreets* the number of failures in the first quarter was 4,179, against 4,512 in the first quarter of 1896. In total liabilities, however, the amount was $111,837,663, against $62,513,926 in 1896. In amount of liabilities, the failures of the first quarter of 1908 exceeded any two first quarters since 1881.

133.—ST. PAUL. *Q.* Is my investment in Great Northern preferred imperilled by the large issue of stock a year or so ago? Why were these issues made at that time? Has the money been spent?

A. We think not. A large part of the expenditure has not been made; and the money that *was* spent has not begun to give returns as yet. Our experience of J. J. Hill leads to the almost inevitable conclusion that what he spends on his road gives good returns in the long run. We consider the 7 per cent. dividend safe, and believe the stock relatively cheap.

The big issues were sold to provide capital for work contemplated. They were made at that time because Mr. Hill and his directors thought it well to be provided with plenty of money through 1907 and 1908. The result seems to bear out the judgment; and surely that foresight argues well for the companies concerned.

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Half the enjoyment of the summer vacation depends on the choice of the right place. There's a right place for everybody. You will find it described in the 1908 Summer Book of the Lackawanna Railroad, entitled

"MOUNTAIN AND LAKE RESORTS"

a beautifully-illustrated book of 112 pages and a practical guide to the best places for fishing, hunting, golfing, motoring, climbing, sailing, swimming or any other sport or recreation. The book will tell you the one best place to go to, the right way to go, and the best place to stay. It gives list of hotels, rates, railroad fares, etc.

Send your address and 10c. in stamps and the book will be mailed to you.

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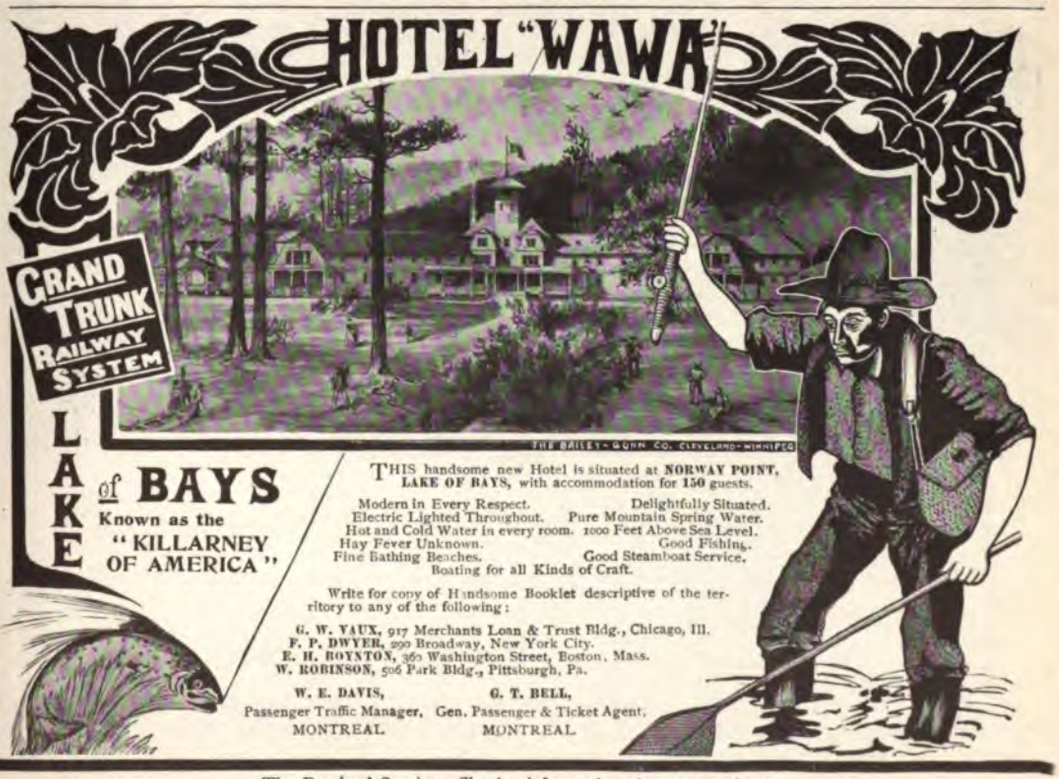
General Passenger Agent, Lackawanna Railroad
Dept. 11. 90 West St., New York

Lackawanna Railroad



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Known as the "KILLARNEY OF AMERICA"

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Modern in Every Respect. Delightfully Situated.
Electric Lighted Throughout. Pure Mountain Spring Water.
Hot and Cold Water in every room. 1000 Feet Above Sea Level.
Hay Fever Unknown. Good Fishing.
Fine Bathing Beaches. Good Steamboat Service.
Boating for all Kinds of Craft.

Write for copy of Handsome Booklet descriptive of the territory to any of the following:

G. W. VAUX, 917 Merchants Loan & Trust Bldg., Chicago, Ill.
F. P. DWYER, 290 Broadway, New York City.
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W. ROBINSON, 506 Park Bldg., Pittsburgh, Pa.

W. E. DAVIS, Passenger Traffic Manager, MONTREAL
G. T. BELL, Gen. Passenger & Ticket Agent, MONTREAL

The Readers' Service will give information about motor boats

·THE·TALK·OF·THE·OFFICE·

"To business that we love we rise betime
And go to 't with delight."—*Antony and Cleopatra.*

CAN YOU IMPROVE OUR ADVERTISING?

The many advertisements in every number of THE WORLD'S WORK represent the highly trained skill of specialists. But as a reader you are the best judge as to how hard each advertisement, whether of soap or books or bonds, has hit you; how could you have been hit harder by any one of them? We wish our friends would write and tell us what advertisement has appealed to them most, and why; or how some advertisement could have been improved. We shall welcome suggestions, improvements or opinions, and for the best we offer a series of rewards, as you will see in a page announcement farther along in this issue.

A GOOD THING, OR SO WE REGARD IT. WITH THE PUBLISHERS' COMPLIMENTS.

We wish that every reader of THE WORLD'S WORK knew about another of our magazines, *Country Life in America*. We have been foolish enough to suppose that this really beautiful magazine was known to everyone who loves the country, yet we are constantly meeting people who have no knowledge that such a magazine exists, or who have not seen it since it has grown to be one of the most effective influences in the country.

Pages of type description are not worth a single look over the magazine itself. We are against the practice of sending out sample copies, but to any reader of THE WORLD'S WORK who will study the magazine, we will take great pleasure in sending *Country Life in America* for three months on approval.

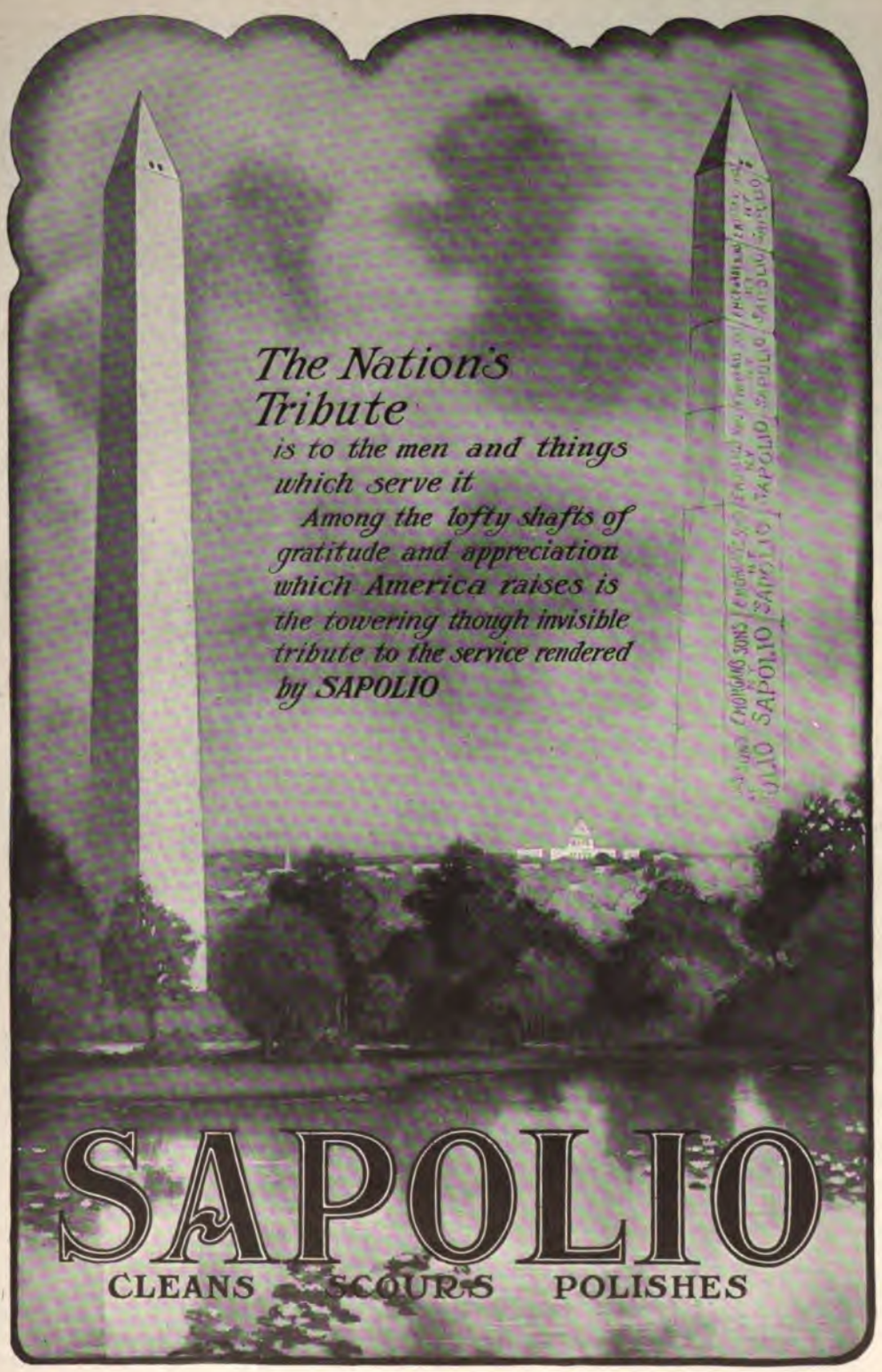
DOUBLEDAY, PAGE & COMPANY,
New York City.

I accept your offer to send *Country Life in America* three months on trial, without obligation.

Name .....

Address .....

P. S. If you are not really interested in the country, country houses, gardens and the study of nature, *Country Life in America* is not for you, and we hope you will not fill out this coupon. *But if these* things mean anything to your heart and head, we are offering you a genuine treat.


The Nation's Tribute
is to the men and things which serve it
Among the lofty shafts of gratitude and appreciation which America raises is the towering though invisible tribute to the service rendered by SAPOLIO
SAPOLIO
CLEANS SCOURS POLISHES

A Toilet Maxim

"You never know how much beauty there is in your skin until PEARS' has brought it out."

The skin is naturally beautiful. Look at the skin of a child. It is nearly always fair and soft and of a delicate roseate tint. But neglect and the use of bad soaps, often drive away this daintiness.

How different it is when PEARS' is used! By its daily use the beauty of the skin is preserved in its original freshness from infancy to old age.

The most economical as well as the best.

PEARS'

Produces natural beauty by natural means.

OF ALL SCENTED SOAPS PEARS' OTTO OF ROSE IS THE BEST.

"All rights secured."

A NEW DEPARTMENT IN BANKING

SAFE DEPOSIT BY MAIL FOLLOWS THE COMPLETION OF THE LARGEST ARMOR PLATE VAULTS IN THE WORLD

AMERICAN banking in all its ramifications has centred in and grown out of the island of Manhattan. To-day New York City is one of the four leading money markets of the world. Each evolution of the business has had either its birth or an early adoption here. We have grown from our old-fashioned ways of doing things — from negotiating with the Indians in forest clearings and from the barterings of Dutch farmers and merchants in the market places of New Amsterdam to the dealings of the modern men of money in the marble-walled offices of to-day's New York.

Special features of banking have arisen here and are now parts of the general financial business of the country: commercial banks; savings banks, trust companies, investment houses, foreign exchange and letters of credit firms, and safe deposit companies with vaults in which to store anything from old love letters tied up with blue ribbons to red-sealed deeds to city property in New York and San Francisco. In New York the greatest of each of these specialties is transacting its business.

Now come the two really latest and most interesting banking developments — the largest safe deposit vaults in the world, and the idea of using these vaults for the storage of valuable documents for residents of any part of the world.

MAIN ENTRANCE TO NORTH TRINITY BUILDING
Beneath which are located the largest safe deposit vaults in the world.

The development of the rural free delivery system has extended the advantages of the great cities to the farthest nooks and corners of the country, and the perfecting of the registered mail service has made the sending of valuable packages or letters through the mails so absolutely safe that business at long range has become not only very simple and very easy, but it has been stripped of every element of risk.

Uncle Sam is a swift messenger and a trusty one. The great savings institutions of the big cities have for years been drawing deposits from all over the world, and it is an unheard of thing that there should be either loss or delay in the mail.

The new idea of Safe Deposit by Mail is a logical development of the everyday safe deposit business. If the people who live at a distance from great cities can, with safety and convenience to themselves, maintain a bank account in strong institutions of the financial centres, why should they not also entrust their valuable documents to this same class of institutions for safe keeping?

There is scarcely a man or woman in the country who does not have valuable papers of some kind. It may be a deed to the home

— an insurance policy on the life of the breadwinner; a stock certificate or a bond, or it may be a will or some other paper, the loss of which might mean financial ruin to the family. These papers are all too frequently kept about the house, where they are in constant danger of loss, and any plan that will render them absolutely secure will mean much for the welfare of the country.

And this is just what this new development in safe deposit practice proposes to do.

Down in lower Broadway, right in Trinity churchyard, as it were, are the Trinity Buildings, fine examples of business architecture. In the basement and sub-basement of the North Trinity Building, directly under the offices of the Carnegie Trust Company, are the new vaults of the Carnegie Safe Deposit Company. They are the largest public vaults in the world — much larger than those of the famous Bank of England, and more commodious than any in this country. Nearly two-hundred feet in length, they are built of Harveyized steel armor plate, the surface of which is so hard that no drill ever made could make the slightest impression upon it. The great circular door, nearly two feet thick and weighing twenty tons can be closed by a child; a giant could not open it until the intricate clockwork releases the combination at the time predetermined by the officials of the company. This makes a storehouse for valuables that is proof against burglars, riots, or any action of the elements. With a twenty-two-story building on top of it, it seems to be fastened down to old Mother Earth to stay.

"The safest place in the world" is not a misleading designation of this vault, and the protection it affords is now available to the people of the country at large, so that any one who realizes the value of a safe place in which to keep a will, deed, lease, agreement, bond, note, stock certificate, or private paper of any nature, may send it to these great vaults in the heart of New York City and feel perfectly safe in doing so.

The details of this plan work out very simply. A certain part of the vault has been set apart for the deposits that come by mail. A man or woman desiring to deposit a certain document, or a number of them, sends them in a specially made and carefully sealed envelope by registered mail or express to the safe deposit company. In many places it is even unnecessary to go to the nearest post office — the mail man will register the letter at the door. The depositor receives a receipt from the United States Government, or from the express company, covering the envelope in transit. When it reaches the safe deposit vaults it is duly entered in the company's records and a receipt sent for it. Then it is placed in a special compartment, access to which is denied to all but the heavily bonded custodian. Other papers may be added to the deposit, as may be desired, from time to time. Papers may be taken out in very much the same way. The depositor may write for his envelope, and it will be sent at once by registered mail. The seal of an envelope is never broken except under positive written instructions from the owner. Private papers may be mailed and deposited with the positive knowledge that no one will ever see them so long as they remain in the custody of the safe deposit company. They will be returned to the owner with the original seals intact.

Many readers of THE WORLD'S WORK invest their savings or funds entrusted to them in securities purchased, possibly, from New York brokers. If they realize the risk of keeping such papers at home, they can instruct their broker to deliver them to the safe deposit company, where they will be filed with the customer's other papers, the receipt being given to the broker for transmittal to his principal.

In these ways the safe deposit vaults are as available for people living out of New York as for those in the city, and more private.

Correspondence in regard to the plan of Safe Deposit by Mail should be addressed to the Carnegie Safe Deposit Company, Broadway and Cedar Street, New York, where it will receive courteous attention.

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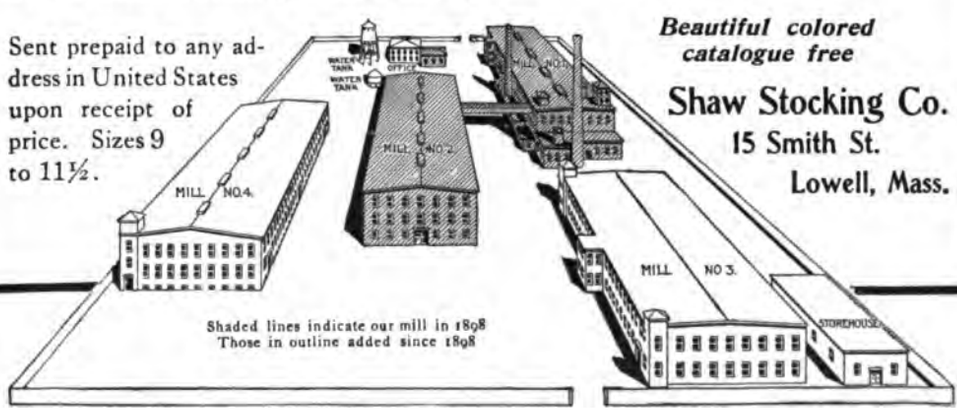

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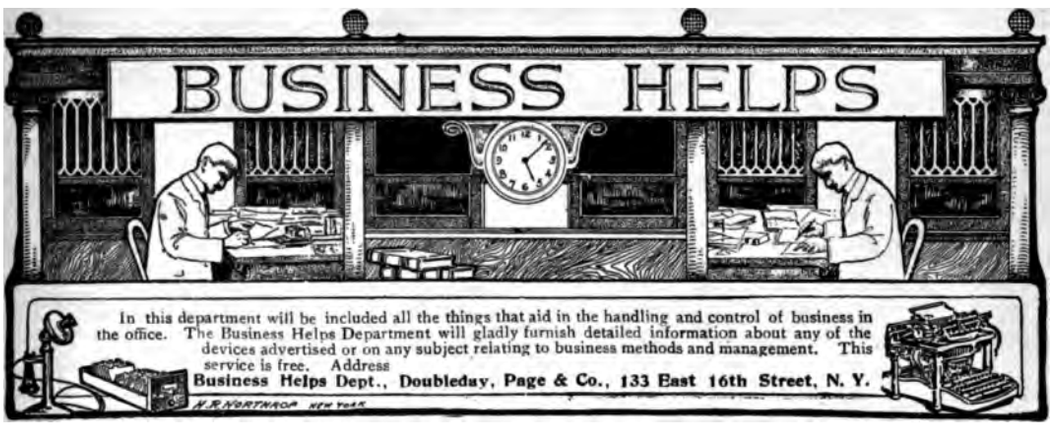

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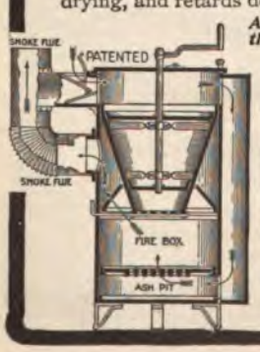

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In the designing and construction of electrical transmission lines and distributing systems of any magnitude, in any part of this or foreign countries, our services are at your disposal.

After the inception of the project we relieve you of every detail in its execution. We first make preliminary reports and estimates, then design the plant in all details, select and buy land or right-of-way, purchase equipment, construct the plant and finally turn it over to you ready for operation.

Under the provisions of our contract—based on cost plus a fixed sum or cost plus a percentage—we become your agent, safeguarding your interests at all times.

If you are interested in electrical transmission design and construction, write for further information.

Stone & Webster Engineering Corporation
Constructing Engineers

147 Milk Street BOSTON, MASS.

We are prepared to design and construct water power developments, power stations, industrial building, railways, electrical transmission lines and distributing systems, either new work or extensions. Correspondence invited.

How Can I Know About Paint Before I Use It?

asks the cautious man or woman. After the paint is on the house it is too late. The money, not only for the paint, but for the painter's labor, has been spent. Why not do as the big paint users do—railroads, contracting painters, factory owners, etc.?—they test White Lead, which is the solid ingredient of all good house paint, before it is applied.

The paint ingredients (White Lead, Linseed Oil and coloring matter) should always be *bought separately* and mixed by the painter *fresh for each job.* The test for quality is then made before the paint is mixed. It is not a bit complicated; all one needs is a flame (candle, gas or spirit lamp) and a blowpipe to intensify the heat.

White Lead is corroded metallic lead, the same as shot, lead-pipe or home-made sinkers for fishing lines. Intense heat forces the pasty "White Lead" back into its original form of metallic lead.

If, therefore, your experiment fails to wholly reduce the White Lead to metallic lead, you may be sure that the supposed White Lead is either adulterated or totally bogus.

FULL WEIGHT KEGS

The Dutch Boy Painter on a keg guarantees not only purity, but ***full weight*** of White Lead. Our packages are not weighed with the contents; each keg contains the amount of ***White Lead*** designated on the outside.

We will furnish the necessary Blowpipe Free upon request

if you wish to test paint. We are glad to have you test our White Lead. Would we dare to do this, if there were any doubt as to the purity of our product? Ask for Test Equipment U. Address

NATIONAL LEAD COMPANY

In whichever of the following cities is nearest you:

New York, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Philadelphia [John T. Lewis & Bros. Co.]; Pittsburgh [National Lead & Oil Co.]

Consider the Effect of Hardware

In planning a home do not overlook the decorative possibilities of the hardware, and do not neglect the opportunity to exercise your own judgment in its selection.

SARGENT'S ARTISTIC HARDWARE

offers the widest latitude of choice. Designs are made to harmonize with every style and period of architecture.

Sargent's Book of Designs Sent Free

will prove invaluable if you are building or remodeling. Shows 68 different patterns of artistic hardware. Filled with helpful suggestions. Sent free to anyone interested—a postal request will bring a copy by return mail. Address

SARGENT & CO., 154 Leonard Street, New York.

Pure Paint

How to Know It by Simple Test

Does Not Crack, Scale or Check

Paint your home with pure white lead, colored at time of painting—it's the *only economical*—the only *right* way to paint.

The easiest way to know pure white lead is to look for CARTER on the keg.

Prove Carter pure this way—

"Place a piece of Carter Strictly Pure White Lead about the size of a pin head on a match one-half inch from the head and light the match.

CARTER
Strictly Pure
White Lead

Hold one or two lighted matches in the other hand directly under the lead. It will quickly reduce to small globules of metallic lead which can be easily seen on close inspection. 'White Lead' that is adulterated in the least cannot be reduced in this or any way, and is unfit for use."

Satisfied of purity—look for superior *whiteness*. Pure white lead of extreme *whiteness* assures clearest, brightest and most durable colors (an important point). Carter is the *whitest* lead because correctly made by a modern process that eliminates all impurities and discoloration.

When you paint, ask your painter to use Carter White Lead—to be sure of the *best*.

While Carter costs a trifle more than ordinary leads, its cost per square yards covered and per years' wear is lowest.

Send for free book, "Pure Paint" (with six modern color schemes), and know *why*. If we have reasonable arguments you want to know them.

CARTER is sold by all reliable dealers.

CARTER Kegs Contain Full Weight of White Lead

CARTER WHITE LEAD CO.

Factories: Chicago—Omaha

W. P. Station 3, Chicago

To Be Sure It's Pure Look for *CARTER* on the Keg

Hot Water When You Want It

No lighting of fires—no coaxing the kitchen range—no waiting for the kitchen boiler to "get busy"—no scant supply of hot water—no muddy or rusty water—no trouble of any kind if you have a

RUUD

Automatic Gas Water Heater

You merely turn any hot water faucet in the house and in ten seconds the water comes with a rush—clean and sizzling hot. As long as the faucet is open the hot water doesn't give out, for the RUUD Heater is inexhaustible. Think of having an unlimited supply of hot water in the laundry, kitchen and bathroom with no fires to watch. **Easy to attach in your basement to pipes already installed.**

Our free book explains it all. Write for it, and for names of families in your own town who use the RUUD.

RUUD MFG. COMPANY,
PITTSBURGH, PA.,
DEPT. H

(Branches Everywhere)

Cut Down Your Ice Bills

You buy a refrigerator once in a lifetime—you buy ice every day. The walls of McCray Refrigerators are scientifically built so that they will keep the cold air **in** and the hot air **out.** They therefore use much less ice than others, and soon pay for themselves, besides keeping all provisions pure and in fresh condition.

McCray Refrigerators

are thoroughly insulated with mineral wool, the best insulating material known, and have the McCray Patent System of Refrigeration which insures a perfect circulation of pure, dry, cold air. They are lined with White Opal Glass, Porcelain Tile, White Enamel or Odorless White Wood, and are the cleanest, sweetest, dryest, most sanitary refrigerators made. No zinc is ever used in their construction, as zinc forms oxides that poison milk and other food and is very dangerous.

Let us tell you how easy it is to have a McCray arranged to be **iced from the outside,** thus keeping the iceman out of the house.

McCray Refrigerators are made in all sizes, **ready for immediate shipment,** and are **Built-to-Order** for all purposes. Every refrigerator is positively guaranteed to give lasting satisfaction.

Send Us This Coupon

Ask for catalog No. 83 for residences; No. 47 for Hotels, Clubs, Restaurants; No. 65 for Grocers, No. 58 for Meat Markets or No. 71 for Florists—They are the best refrigerator catalogs published.

McCray Refrigerator Co.
671 Mill Street,
Kendallville, Ind.

Branches in all principal cities.

TEAR OFF, SIGN AND MAIL TODAY

McCray Refrigerator Company,
671 Mill Street,
Kendallville, Indiana.

Gentlemen:—Please send me your free Catalog of McCray Refrigerators No.

Name.....

Street.....

City.....*State*.....

Leonard Cleanable Porcelain Lined Refrigerators

This style 33 x 21 x 46. Polished Oak, Round Corners, Quarter sawed Panels.

$33.00

Delivered as below.

EXCELL ALL OTHERS

The porcelain lining is real porcelain fused on sheet steel and indestructible. This means a sweet, clean refrigerator at all times. The doors are airtight, which prevents sweat and mould.

There is a constant and automatic circulation within of pure, cold, dry air. Patent interior construction makes it impossible for water to ruin the wood work.

Cabinet work, finish and design are up to high Grand Rapids standard.

YOUR ICE BILLS CUT IN HALF

There are 9 walls to preserve the ice (see cut below.) Price ⅓ less than tile or glass lining and the refrigerator is better. For sale by the best dealers or shipped direct from the factory. 30 days trial. Freight prepaid as far as the Mississippi and Ohio Rivers. Beware of imitations made of white paint. Write for free sample of porcelain lining and catalogue showing 30 other styles and prices.

Grand Rapids Refrigerator Co., 21 Ottawa St., Grand Rapids, Mich.

WHEN YOU BUILD USE CONCRETE

It is Economical, Durable, Fireproof and Sanitary; needs no paint or repairs; is warmer in winter; cooler in summer than any other Construction and is adaptable to any type of

Factory, Warehouse or Mill

We have prepared for **Manufacturer and Merchant** a new book dealing solely with the important question of factory building.

"Reinforced Concrete in Factory Construction"

a book containing besides several general chapters on concrete, concrete aggregates, methods and materials for reinforcing—*ten chapters giving detailed descriptions of ten Concrete Factories and Warehouses* erected in various parts of the country by different systems. The photographs, sectional drawings, and specifications were furnished by the engineers in charge of the work.

This book, profusely illustrated (250 pages, size 6½x9), pamphlet bound, sent free upon request to Architects, Engineers and Manufacturers who contemplate building. Cloth bound copies, 50 cents each.

Other Books

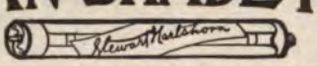
For the Suburbanite and Farmer: **"Concrete Construction about the Home and on the Farm"** Paper bound copies, free upon request. Cloth bound copies 25 cents each.

For the Homebuilder and Investor: **"Concrete Country Residences"** Copies, (168 pages, size 10x12), will be sent express prepaid upon receipt of $1.00.

For the Mechanic and Artisan: **"Concrete Cottages"** Copies sent free upon request

THE ATLAS PORTLAND CEMENT CO.
ADVERTISING DEPT.
30 BROAD STREET, NEW YORK

HARTSHORN SHADE ROLLERS



Bear the script name of Stewart Hartshorn on label

Wood Rollers **Get "Improved," no tacks required** **Tin Rollers**

BUTCHER'S BOSTON POLISH is the best finish made for floors and interior woodwork. Not brittle; will not scratch or deface like shellac or varnish. Send for free booklet. For sale by dealers in Paints, Hardware and House Furnishings. The Butcher Polish Co., 356 Atlantic Ave., Boston, Mass.

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The World's Headquarters for Dynamos, Motors, Fans, Toys, Batteries, Belts, Bells, Lamps, Books **Undersell All. Want Agents.**

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A. G. C. Fletcher, Architect, New York

Artistic, Economical and Reliable

If you have had bad results with the kerosene-oil shingle-stains, don't condemn all stains.

Cabot's Shingle Stains

have stood the test for over twenty-five years in all parts of the world. Thousands of people have used them, and hundreds of unsolicited testimonials have been received, showing that they look better, wear better and preserve the wood better than any other exterior colorings.

Samples of colors on wood with catalogue and color-chart showing 64 combinations, sent free

SAMUEL CABOT, Inc., Sole Manufacturers
3 Oliver Street, Boston, Mass.
Agents at all Central Points

DESIGN AND DURABILITY UNSURPASSED — TRADE "Standard" MARK

A Sanitary Bathroom means a Healthy Home

NOT one householder in ten realizes the health-importance of a *sanitary* bathroom. But when you consider for a minute that the health-barometer of the entire home is *governed absolutely* by domestic sanitary conditions, and that its rise or fall is largely regulated by the sanitary or unsanitary condition of the *bathroom*, you can readily see the extreme necessity for equipping your bathroom with only the most sanitary fixtures.

"Standard" Porcelain Enameled Ware

is the standard of sanitary equipments for the home.

"Standard" "Green & Gold" Label Fixtures, because of their smooth, non-absorbent surfaces without joint or crevice, their one-piece construction, and the indestructibility of their snowy enameling, are sanitary to the highest degree and safe-guard the health of your home as no other fixtures can. Genuine "Standard" Ware lasts longer, is more beautiful, and gives greater satisfaction in use than any other plumbing system in the world. You can equip your home throughout with "Standard" "Green & Gold" Label Fixtures for the same price you would pay for unguaranteed and unsanitary equipment.

There is but one way to solve your sanitary problem—satisfactorily—economically—and for all time. Equip with genuine "Standard" Porcelain Enameled Ware and look for the label to make sure you are getting what you specify.

Send for our free 100 page book—"Modern Bathrooms"—the most complete and beautiful book ever issued on the sanitary subject. Write today, enclosing 6c postage, giving name of your architect and plumber if selected.

Address, Standard Sanitary Mfg. Co. Dept. H, Pittsburgh, Pa., U. S. A.

Offices and Showrooms in New York: "Standard" Building, 35-37 West 31st Street.

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"One touch of harmony makes the whole world kin."

THE Phonograph would never have become the great popular entertainer it is but for Edison. He made it desirable by making it good; he made it popular by making it inexpensive.

The EDISON PHONOGRAPH

has brought within reach of all, entertainment which formerly only people of means could afford. It has even displaced more expensive amusements in homes where expense is not considered.

THE NEW RECORDS FOR MAY

are the work of artists of reputation. Each is perfect of its kind and many of your kind are included. You can hear them at any Edison store April 25th. Get of your dealer, or of us, THE SUPPLEMENTAL CATALOGUE, listing all the new May Records, THE PHONOGRAM, describing each Record in detail, and the COMPLETE CATALOGUE, which lists all Records now obtainable for the Phonograph.

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Fairy Soap Purity

can be relied upon, because FAIRY SOAP is made only from edible products. Pretty colored soap makes pretty bad complexions. For pure complexions use pure, undyed soap.

The purest, whitest, cleanest soap is FAIRY SOAP—the floating, ***oval*** cake.

THE N. K. FAIRBANK COMPANY, CHICAGO

Fairy Soap was granted highest possible awards at both St. Louis and Portland Expositions.

"Have You a Little 'Fairy' in Your Home?"

Your Table Manners

Your "table manners" are not half so important as the things that are on your table.

Eating pie with a fork does not make the pie any more digestible or nutritious. Twenty years from now Fashion may ask you to eat everything with a spoon.

The laws of nature are higher than the decrees of Fashion. Your table will reflect good breeding as well as an intelligent regard for the health and happiness of the family if SHREDDED WHEAT is there. It is eaten by discriminating people who know that it is the cleanest, purest, most nutritious and most easily digested of all the cereal foods.

Try it for breakfast.

Shredded Wheat is made of the choicest white wheat that grows—is cleaned, steam-cooked, shredded and baked in the finest and cleanest food factory in the world. If you like the BISCUIT for breakfast you will like toasted TRISCUIT (the Shredded Wheat Wafer) for luncheon or other meals. It is delicious with butter, cheese or marmalades.

Our new and handsomely illustrated Cook Book is sent free for the asking.

"It's All in the Shreds"

THE NATURAL FOOD COMPANY,
NIAGARA FALLS, N. Y.

I Want You to Try My Razor

If you are still depending upon the barber or old-fashioned razor you are in the same category with the man who climbs ten flight of stairs when there is an elevator in the building.

You are not only like him—losing time—which is money—but you are also losing the benefits of a clean, comfortable home shave—which is not only a great convenience but also economical.

With the "Gillette" the most inexperienced man can remove, without cut or scratch, in three to five minutes, any beard that ever grew.

My razor is always ready, **No Stropping, No Honing.** No other razor so durable. The "Gillette" will last a lifetime. Blades so inexpensive, when dull you throw them away as you would an old pen.

I have spent years in perfecting this razor, which gives you the best possible shave at home or away—saving you time, money and endless inconvenience.

Over two million men know how well I have succeeded. I want *you* to enjoy the benefits of my razor. All Jewelry, Drug, Cutlery, Hardware and Sporting Goods dealers sell it. Get it to-day.

King C. Gillette

The Gillette Safety Razor Set consists of a triple silver-plated holder, 12 double-edged flexible blades—24 keen edges, packed in a velvet lined leather case, and the price is $5.00.

Combination Sets from $6.50 to $50.00.

Ask your dealer for the "Gillette" to-day. If substitutes are offered, refuse them, and write us at once for our booklet and free trial offer.

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NO STROPPING NO HONING

Symphony Grand Graphophone

The Symphony Grand Graphophone is the one incomparable musical instrument

With this announcement the word "Graphophone" takes on a meaning entirely beyond its original significance.

The Columbia Graphophone, as developed and perfected during the last few years—coincidently with the marvelous advance in the art of disc-record making—has become the one unapproachably versatile musical instrument and entertainer.

But the Symphony Grand Graphophone is the complete fulfilment of a promise that was almost beyond hope—the promise to produce a Graphophone that should appeal to those people who could afford the outlay of two hundred dollars for an instrument utterly devoid of mechanical suggestion—worthy to form a harmonious part of the accessories of the best-appointed music-room.

We have a handsome book now on the press fully describing the Symphony Grand Graphophone. Write in and ask for the "Symphony Book," and let us send you the name of the nearest dealer who can show you the instrument.

SPECIAL.—The advance catalog of Columbia Grand Opera Records, Fonotipia Series, is ready—listing magnificent *signed* records by Bonci, Zenatello, Bassi, Sammarco, Stracciari, Didur, Russ, Barrientos, Pacini and Kubelik. Write for it.

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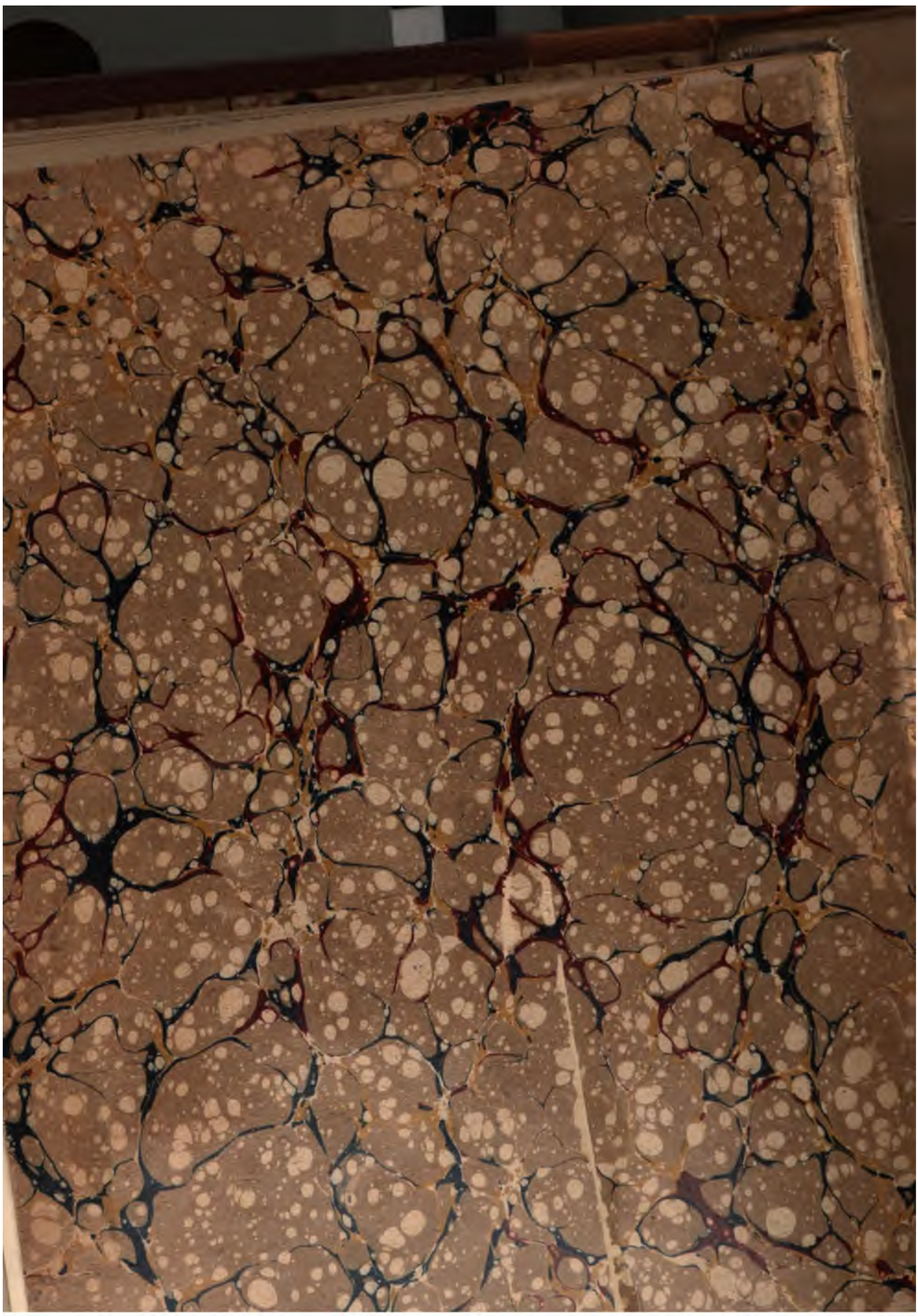
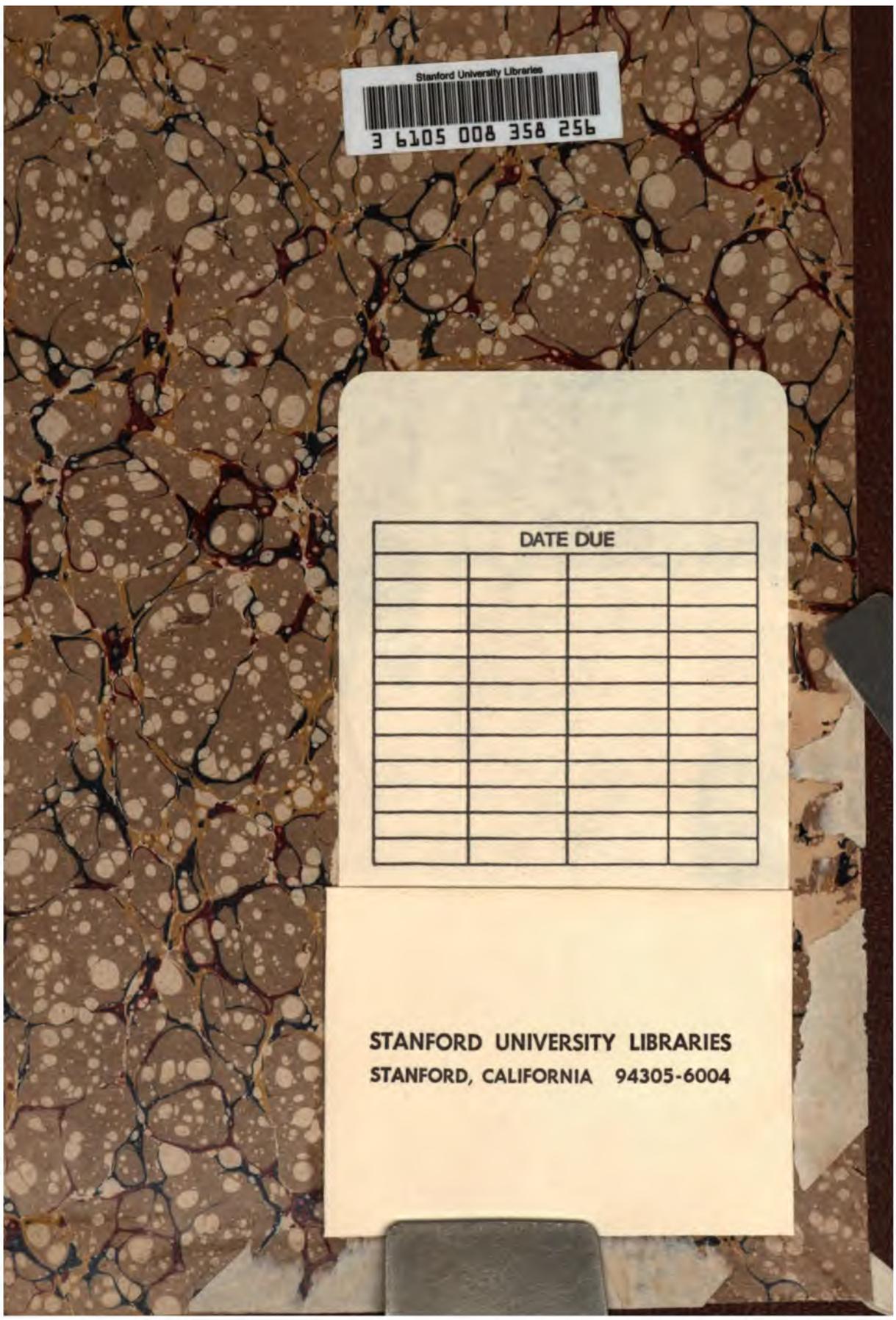
THE WORLD'S WORK PRESS, NEW YORK

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